	Mom	G3 ID	% CD4+
Pedigree 57	G2 # 1	57.1.1	22
		57.1.2	26
		57.1.3	24
	G2 # 4	57.4.1	15
		57.4.2	18
	G2 # 5	57.5.1	21
		57.5.2	19
		57.5.3	24
		57.5.4	22
		57.5.5	19
		57.5.6	17
Pedigree 9	G2 # 4	9.4.1	6
		9.4.2	20
		9.4.3	16
		9.4.4	12
		9.4.5	20
		9.4.6	15
		9.4.7	24
		9.4.8	27
		9.4.9	5
	G2 # 5	9.5.1	18
		9.5.2	20
		9.5.3	22
		9.5.4	20
		9.5.5	22
		9.5.6	20
		9.5.7	23

average	19.1
stdev	5.2
= + 2SD	29.6
= -2SD	8.7

FIG. 1

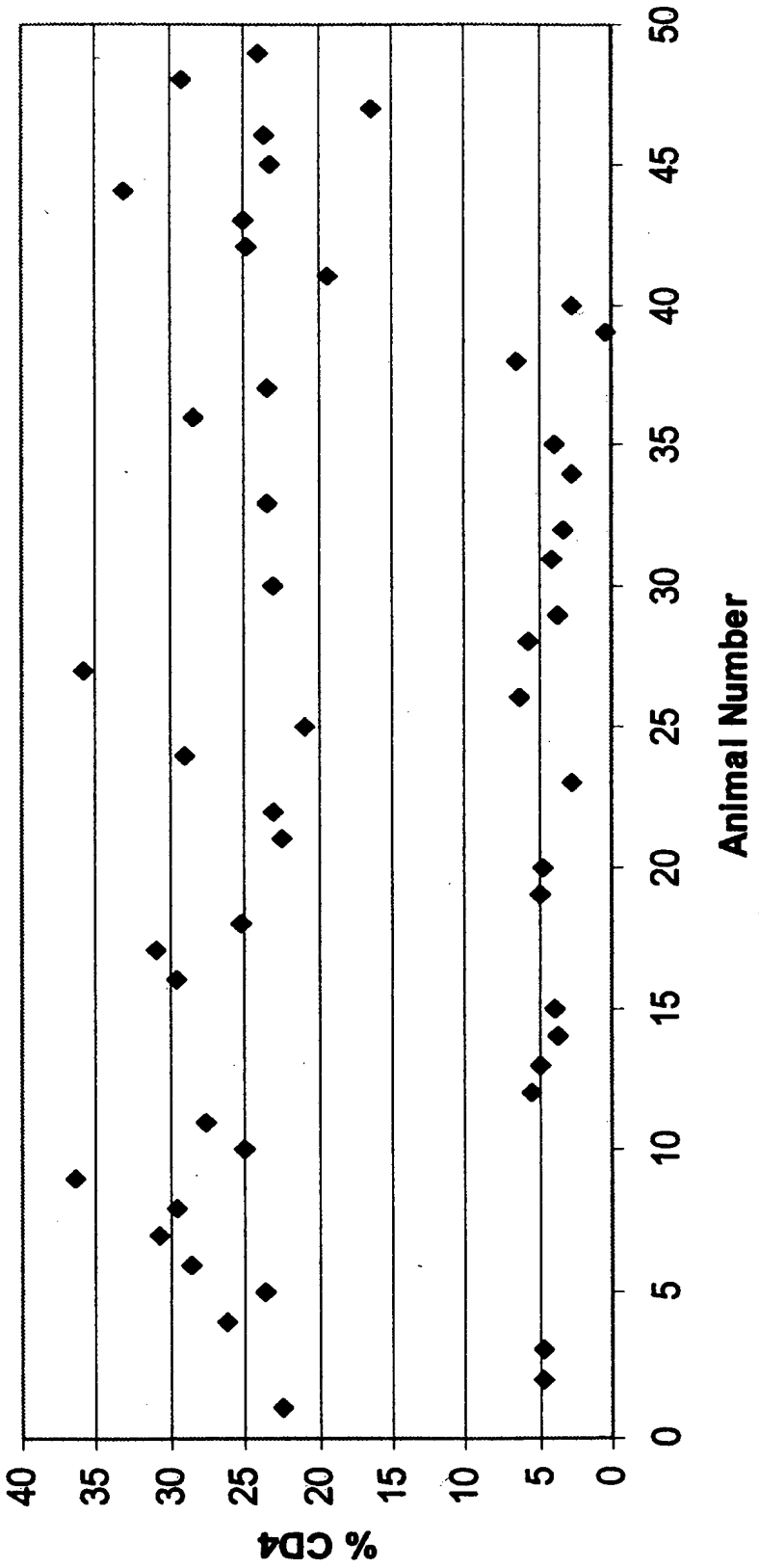

% CD4
40
35
30
25
20
15
10
5
0
Animal Number
0
5
10
15
20
25
30
35
40
45
50

FIG. 2

```
1     GCGCTCCAGC CGCATGTCGC AAGGCCTCCA GCTCCTGTTT CTAGGCTGCG
51    CCTGCAGCCT GGCACCCGCG ATGGCGATGC GGGAGGTGAC GGTGGCTTGC
101   TCCGAGACCG CCGACTTGCC TTGCACAGCG CCCTGGGACC CGCAGCTCTC
151   CTATGCAGTG TCCTGGGCCA AGGTCTCCGA GAGTGGCACT GAGAGTGTGG
201   AGCTCCCGGA GAGCAAGCAA AACAGCTCCT TCGAGGCCCC CAGGAGAAGG
251   GCCTATTCCC TGACGATCCA AAACACTACC ATCTGCAGCT CGGGCACCTA
301   CAGGTGTGCC CTGCAGGAGC TCGGAGGGCA GCGCAACTTG AGCGGCACCG
351   TGGTTCTGAA GGTGACAGGA TGCCCCAAGG AAGCTACAGA GTCAACTTTC
401   AGGAAGTACA GGGCAGAAGC TGTGTTGCTC TTCTCTCTGG TTGTTTTCTA
451   CCTGACACTC ATCATTTTCA CCTGCAAATT TGCACGACTA CAAAGCATTT
501   TCCCAGATAT TTCTAAACCT GGTACGGAAC AAGCTTTTCT TCCAGTCACC
551   TCCCCAAGCA AACATTTGGG GCCAGTGACC CTTCCTAAGA CAGAAACGGT
601   ATGAGTAGGA TCTCCACTGG TTTTTACAAA GCCAAGGGCA CATCAGATCA
651   GTGTGCCTGA ATGCCACCCG GACAAGAGAA GAATGAGCTC CATCCTCAGA
701   TGGCAACCTT TCTTTGAAGT CCTTCACCTG ACAGTGGGCT CCACACTACT
751   CCCTGACACA GGGTCTTGAG CACCATCATA TGATCACGAA GCATGGAGTA
801   TCACCGCTTC TCTGTGGCTG TCAGCTTAAT GTTTCATGTG GCTATCTGGT
851   CAACCTCGTG AGTGCTTTTC AGTCATCTAC AAGCTATGGT GAGATGCAGG
901   TGAAGCAGGG TCATGGGAAA TTTGAACACT CTGAGCTGGC CCTGTGACAG
951   ACTCCTGAGG ACAGCTGTCC TCTCCTACAT CTGGGATACA TCTCTTTGAA
1001  TTTGTCCTGT TTCGTTGCAC CAGCCCAGAT GTCTCACATC TGGCGGAAAT
1051  TGACAGGCCA AGCTGTGAGC CAGTGGGAAA TATTTAGCAA ATAATTTCCC
1101  AGTGCGAAGG TCCTGCTATT AGTAAGGAGT ATTATGTGTA CATAGAAATG
1151  AGAGGTCAGT GAACTATTCC CCAGCAGGGC CTTTTCATCT GGAAAAGACA
1201  TCCACAAAAG CAGCAATACA GAGGGATGCC ACATTTATTT TTTTAATCTT
1251  CATGTACTTG TCAAAGAAGA ATTTTTCATG TTTTTTCAAA GAAGTGTGTT
1301  TCTTTCCTTT TTTAAAATAT GAAGGTCTAG TTACATAGCA TTGCTAGCTG
1351  ACAAGCAGCC TGAGAGAAGA TGGAGAATGT TCCTCAAAAT AGGGACAGCA
1401  AGCTAGAAGC ACTGTACAGT GCCCTGCTGG GAAGGGCAGA CAATGGACTG
1451  AGAAACCAGA AGTCTGGCCA CAAGATTGTC TGTATGATTC TGGACGAGTC
1501  ACTTGTGGTT TTCACTCTCT GGTTAGTAAA CCAGATAGTT TAGTCTGGGT
1551  TGAATACAAT GGATGTGAAG TTGCTTGGGG AAAGCTGAAT GTAGTGAATA
1601  CATTGGCAAC TCTACTGGGC TGTTACCTTG TTGATATCCT AGAGTTCTGG
1651  AGCTGAGCGA ATGCCTGTCA TATCTCAGCT TGCCCATCAA TCCAAACACA
1701  GGAGGCTACA AAAAGGACAT GAGCATGGTC TTCTGTGTGA ACTCCTCCTG
1751  AGAAACGTGG AGACTGGCTC AGCGCTTTGC GCTTGAAGGA CTAATCACAA
1801  GTTCTTGAAG ATATGGACCT AGGGGAGCTA TTGCGCCACG ACAGGAGGAA
1851  GTTCTCAGAT GTTGCATTGA TGTAACATTG TTGCATTTCT TTAATGAGCT
1901  GGGCTCCTTC CTCATTTGCT TCCCAAAGAG ATTTTGTCCC ACTAATGGTG
1951  TGCCCATCAC CCACACTATG AAAGTAAAAG GGATGCTGAG CAGATACAGC
2001  GTGCTTACCT CTCAGCCATG ACTTTCATGC TATTAAAAGA ATGCATGTGA
2051  A
```

FIG. 3

1 GCGCTCCAGC CGC**ATG**TCGC AAGGCCTCCA GCTCCTGTTT CTAGGCTGCG

51 CCTGCAGCCT GGCACCCGCG ATGGCGATGC GGGAGGTGAC GGTGGCTTGC

101 TCCGAGACCG CCGACTTGCC TTGCACAGCG CCCTGGGACC CGCAGCTCTC

151 CTATGCAGTG TCCTGGGCCA AGGTCTCCGA GAGTGGCACT GAGAGTGTGG

201 AGCTCCCGGA GAGCAAGCAA AACAGCTCCT TCGAGGCCCC CAGGAGAAGG

251 GCCTATTCCC TGACGATCCA AAACACTACC ATCTGCAGCT CGGGCACCTA

301 CAGGTGTGCC CTGCAGGAGC TCGGAGGGCA GCGCAACTTG AGCGGCACCG

351 TGGTTCTGAA GGTGACAGGA TGCCCCAAGG AAGCTACAGA GTCAACTTTC

401 AGGAAGTACA GGGCAGAAGC TGTGTTGCTC TTCTCTCTGG TTGTTTTCTA

451 CCTGACACTC ATCATTTTCA CCTGCAAATT TGCACGACTA CAAAGCATTT

501 TCCCAGATAT TTCTAAACCT GGTACGGAAC AAGCTTTTCT TCCAGTCACC

551 TCCCCAAGCA AACATTTGGG GCCAGTGACC CTTCCTAAGA CAGAAACGGT

601 A**A**GAGTAGGA TCTCCACTGG TTTTTACAAA GCCAAGGGCA CATCAGATCA

651 GTGTGCCTGA ATGCCACCCG GACAAGAGAA GAATGAGCTC CATCCTCAGA

701 TGGCAACCTT TCTTTGAAGT CCTTCACCTG ACAGTGGGCT CCACACTACT

751 CCCTGACACA GGGTCT**TGA**G CACCATCATA TGATCACGAA GCATGGAGTA

801 TCACCGCTTC TCTGTGGCTG TCAGCTTAAT GTTTCATGTG GCTATCTGGT

851 CAACCTCGTG AGTGCTTTTC AGTCATCTAC AAGCTATGGT GAGATGCAGG

901 TGAAGCAGGG TCATGGGAAA TTTGAACACT CTGAGCTGGC CCTGTGACAG

951 ACTCCTGAGG ACAGCTGTCC TCTCCTACAT CTGGGATACA TCTCTTTGAA

1001 TTTGTCCTGT TTCGTTGCAC CAGCCCAGAT GTCTCACATC TGGCGGAAAT

1051 TGACAGGCCA AGCTGTGAGC CAGTGGGAAA TATTTAGCAA ATAATTTCCC

1101 AGTGCGAAGG TCCTGCTATT AGTAAGGAGT ATTATGTGTA CATAGAAATG

1151 AGAGGTCAGT GAACTATTCC CCAGCAGGGC CTTTTCATCT GGAAAAGACA

1201 TCCACAAAAG CAGCAATACA GAGGGATGCC ACATTTATTT TTTTAATCTT

1251 CATGTACTTG TCAAAGAAGA ATTTTTCATG TTTTTTCAAA GAAGTGTGTT

FIG. 4A

1301 TCTTTCCTTT TTTAAAATAT GAAGGTCTAG TTACATAGCA TTGCTAGCTG

1351 ACAAGCAGCC TGAGAGAAGA TGGAGAATGT TCCTCAAAAT AGGGACAGCA

1401 AGCTAGAAGC ACTGTACAGT GCCCTGCTGG GAAGGGCAGA CAATGGACTG

1451 AGAAACCAGA AGTCTGGCCA CAAGATTGTC TGTATGATTC TGGACGAGTC

1501 ACTTGTGGTT TTCACTCTCT GGTTAGTAAA CCAGATAGTT TAGTCTGGGT

1551 TGAATACAAT GGATGTGAAG TTGCTTGGGG AAAGCTGAAT GTAGTGAATA

1601 CATTGGCAAC TCTACTGGGC TGTTACCTTG TTGATATCCT AGAGTTCTGG

1651 AGCTGAGCGA ATGCCTGTCA TATCTCAGCT TGCCCATCAA TCCAAACACA

1701 GGAGGCTACA AAAAGGACAT GAGCATGGTC TTCTGTGTGA ACTCCTCCTG

1751 AGAAACGTGG AGACTGGCTC AGCGCTTTGC GCTTGAAGGA CTAATCACAA

1801 GTTCTTGAAG ATATGGACCT AGGGGAGCTA TTGCGCCACG ACAGGAGGAA

1851 GTTCTCAGAT GTTGCATTGA TGTAACATTG TTGCATTTCT TTAATGAGCT

1901 GGGCTCCTTC CTCATTTGCT TCCCAAAGAG ATTTTGTCCC ACTAATGGTG

1951 TGCCCATCAC CCACACTATG AAAGTAAAAG GGATGCTGAG CAGATACAGC

2001 GTGCTTACCT CTCAGCCATG ACTTTCATGC TATTAAAAGA ATGCATGTGA

2051 A

FIG. 4B

Wild Type Amino Acid Sequence for CD83 protein [Mus musculus]

MSQGLQLLFL GCACSLAPAM AMREVTVACS ETADLPCTAP WDPQLSYAVS
WAKVSESGTE SVELPESKQN SSFEAPRRRA YSLTIQNTTI CSSGTYRCAL
QELGGQRNLS GTVVLKVTGC PKEATESTFR KYRAEAVLLF SLVVFYLTLI
IFTCKFARLQ SIFPDISKPG TEQAFLPVTS PSKHLGPVTL PKTETV

Mutant CD83 Amino Acid Sequence: novel tail underlined, in bold.

MSQGLQLLFL GCACSLAPAM AMREVTVACS ETADLPCTAP WDPQLSYAVS
WAKVSESGTE SVELPESKQN SSFEAPRRRA YSLTIQNTTI CSSGTYRCAL
QELGGQRNLS GTVVLKVTGC PKEATESTFR KYRAEAVLLF SLVVFYLTLI
IFTCKFARLQ SIFPDISKPG TEQAFLPVTS PSKHLGPVTL PKTETV**RVGS**
PLVFTKPRAH QISVPECHPD KRRMSSILRW QPFFEVLHLT VGSTLLPDTG
S

FIG. 5

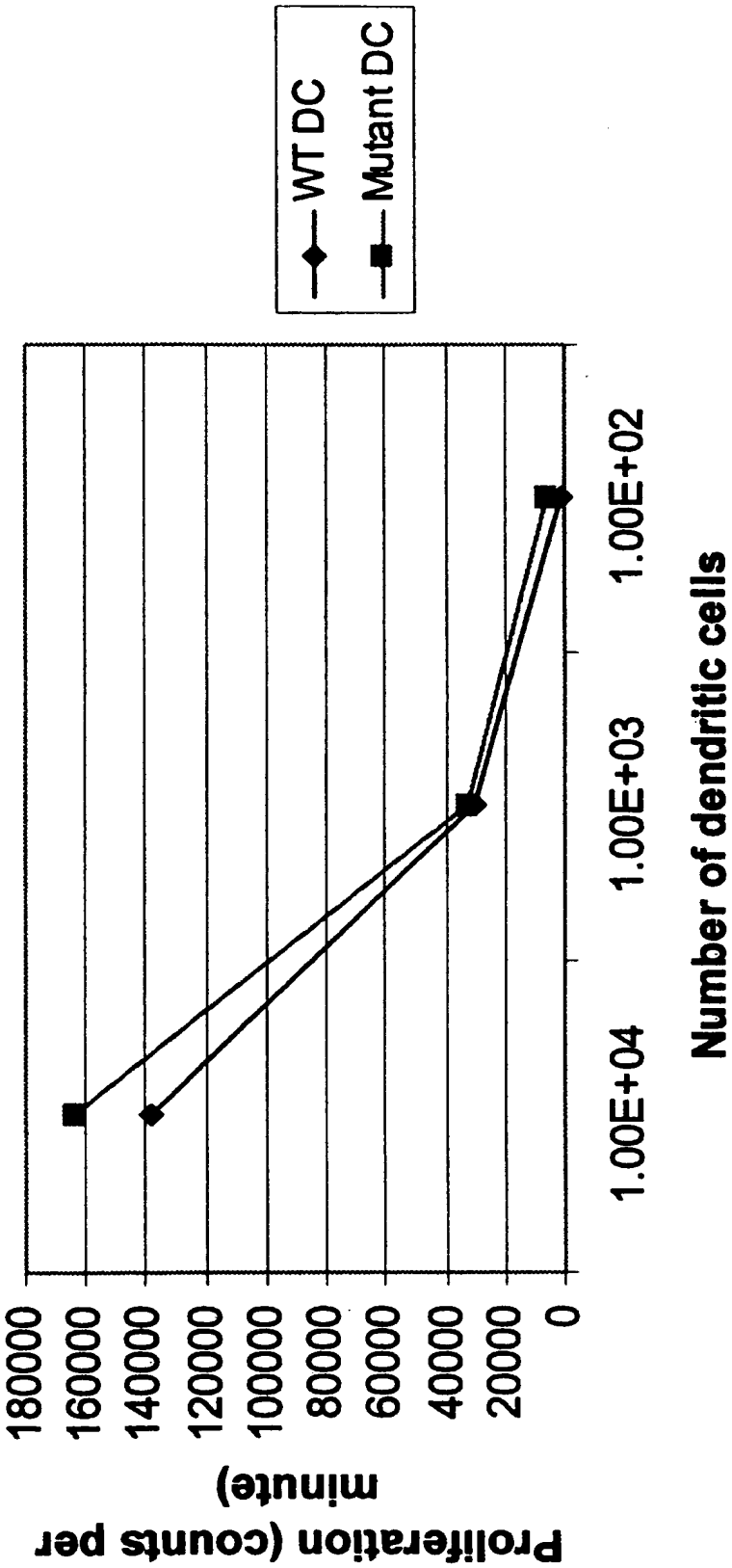

WT DC
Mutant DC
Proliferation (counts per minute)
180000
160000
140000
120000
100000
80000
60000
40000
20000
0
1.00E+04
1.00E+03
1.00E+02
Number of dendritic cells

FIG. 6A

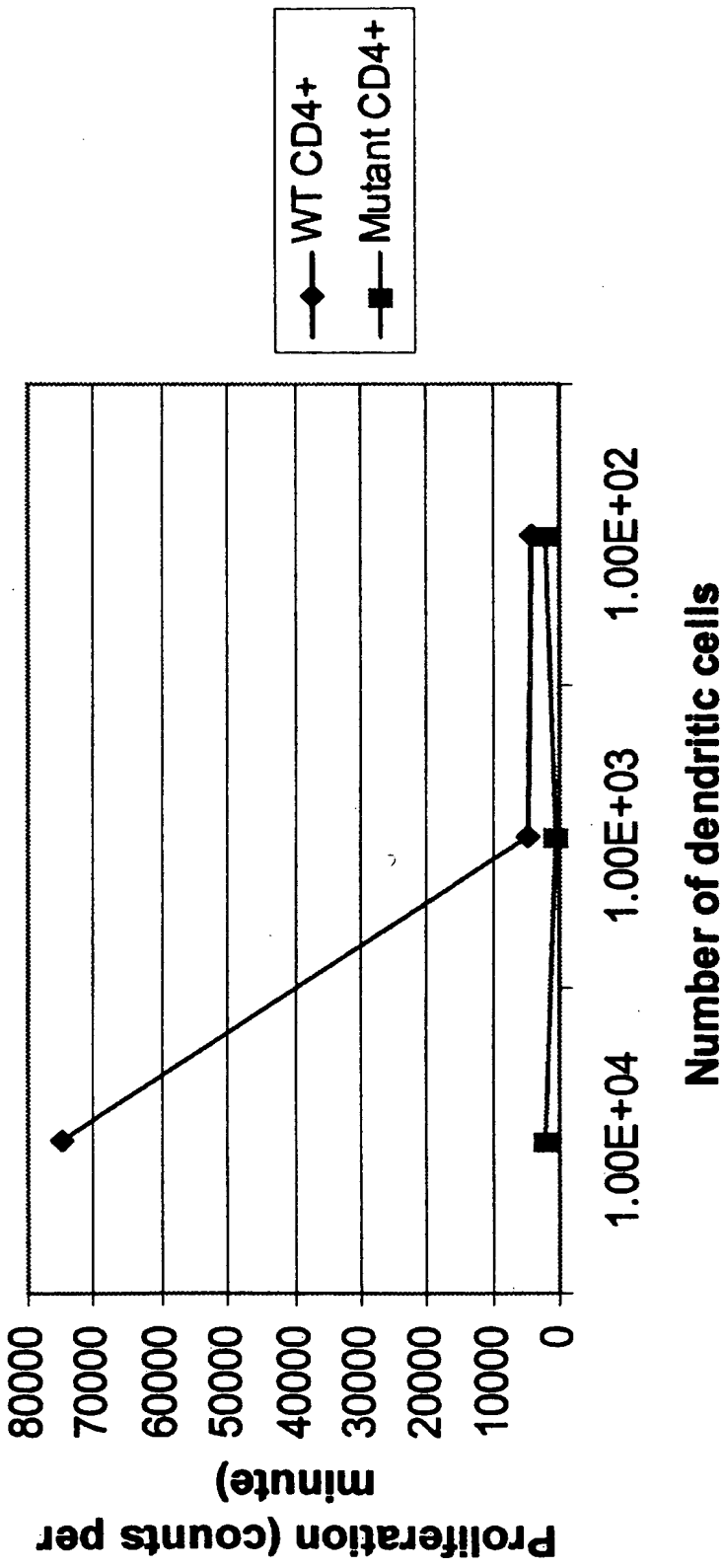

WT CD4+
Mutant CD4+
Proliferation (counts per minute)
80000
70000
60000
50000
40000
30000
20000
10000
0
1.00E+04
1.00E+03
1.00E+02
Number of dendritic cells

FIG. 6B

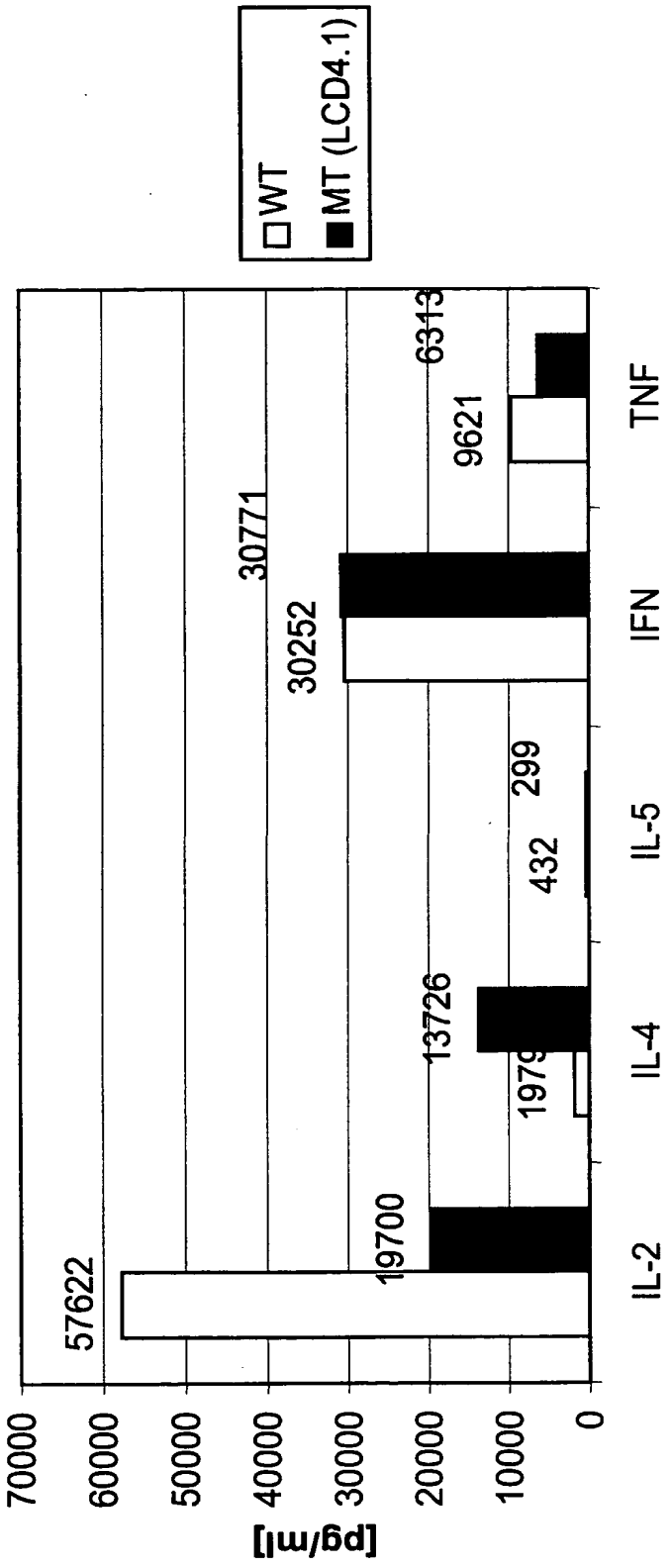

WT
MT (LCD4.1)
[pg/ml]
70000
60000
50000
40000
30000
20000
10000
0
IL-2
IL-4
IL-5
IFN
TNF
57622
19700
13726
1979
432
299
30252
30771
9621
6313

FIG. 7

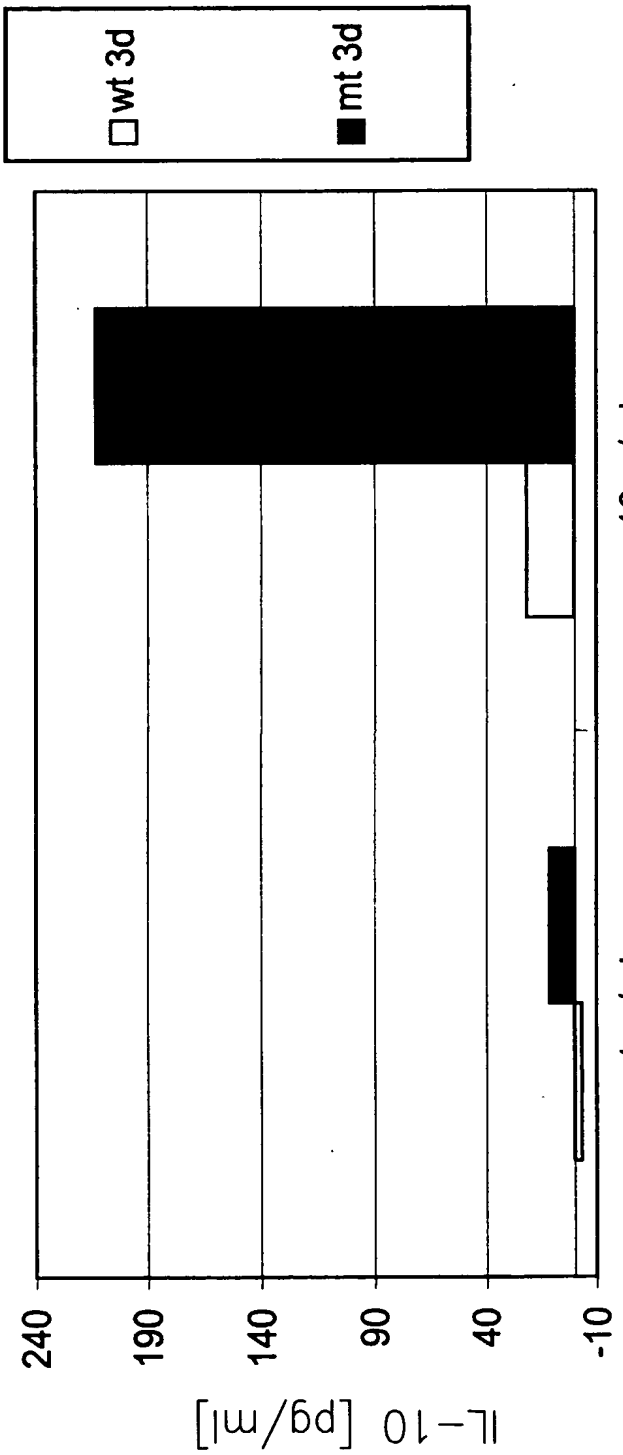


FIG. 8

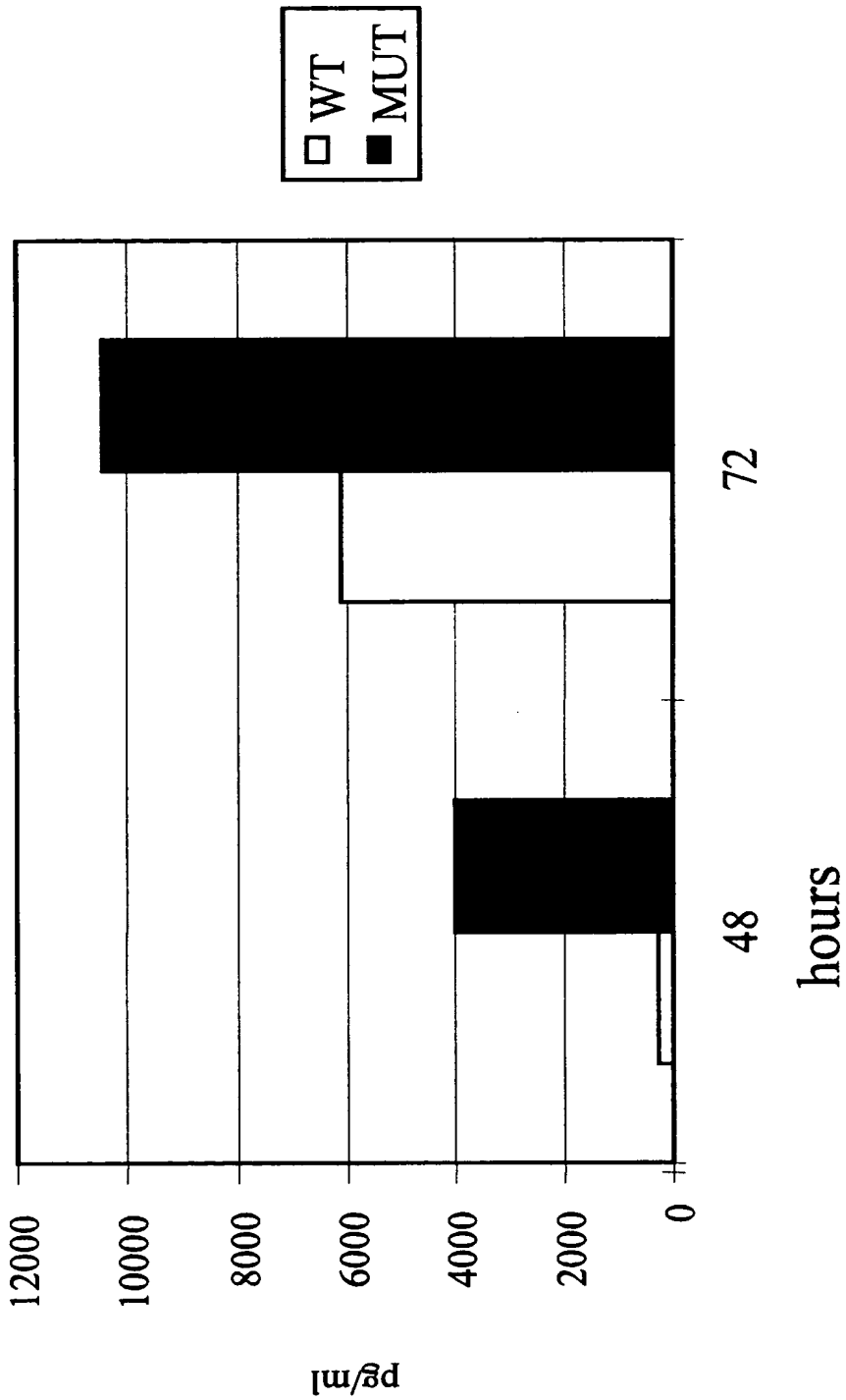
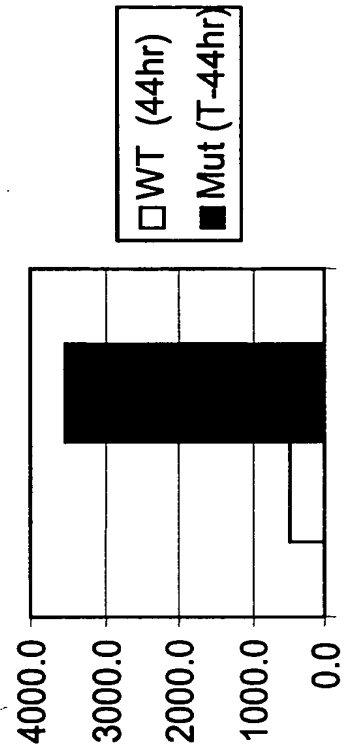
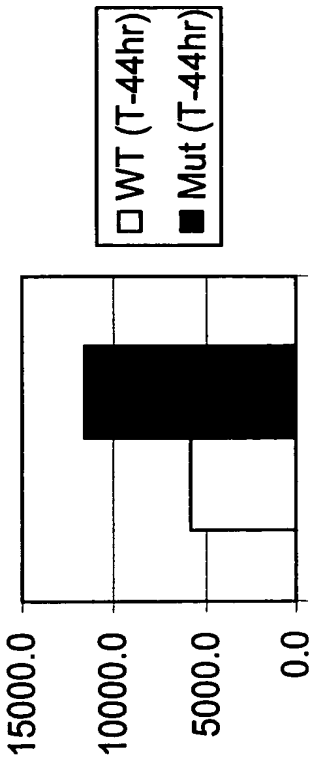


FIG. 9



IL-10

FIG. 10B



IL-4

FIG. 10A

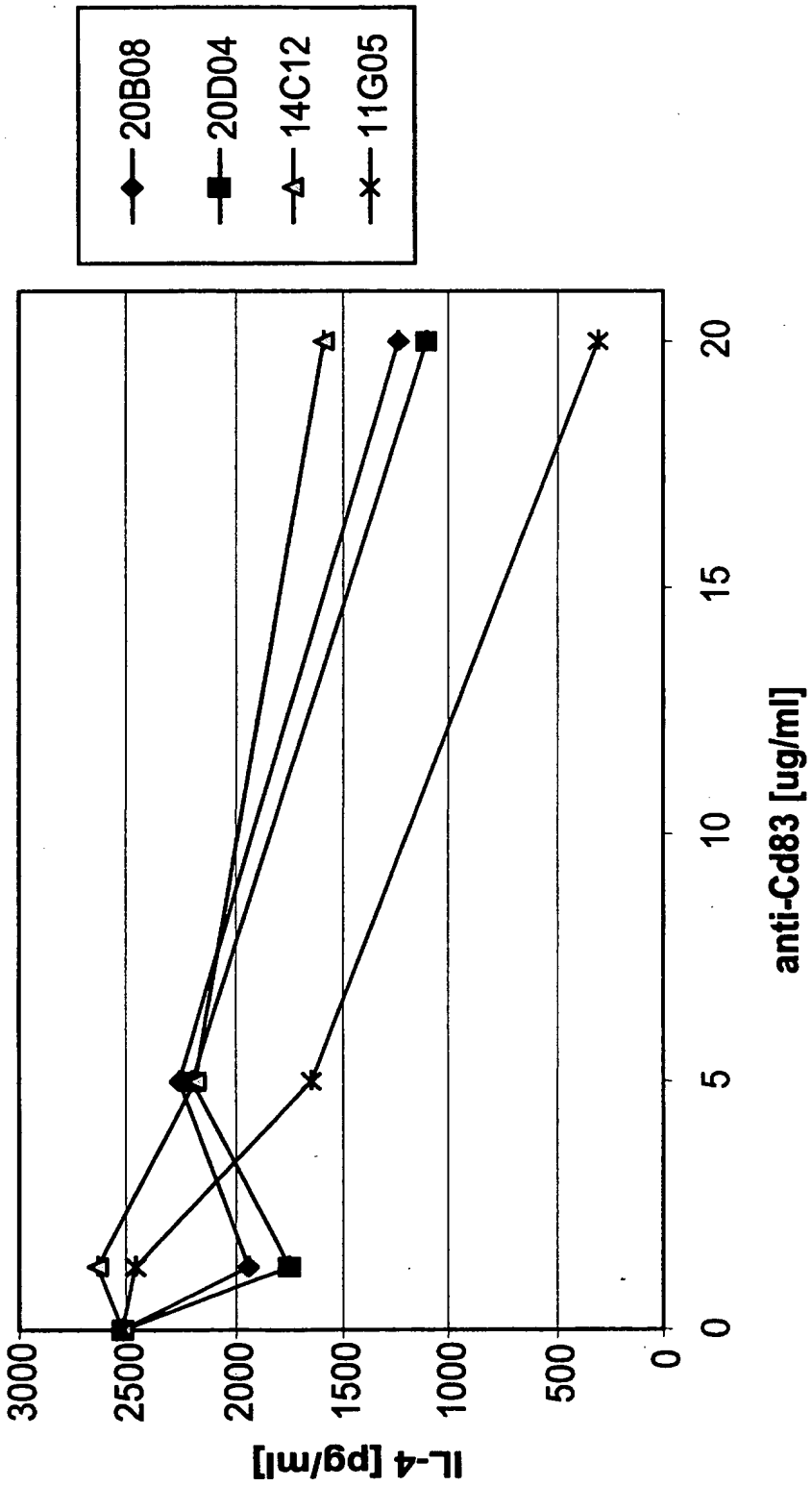

20B08
20D04
14C12
11G05
IL-4 [pg/ml]
3000
2500
2000
1500
1000
500
0
anti-Cd83 [ug/ml]
0
5
10
15
20

FIG. 11

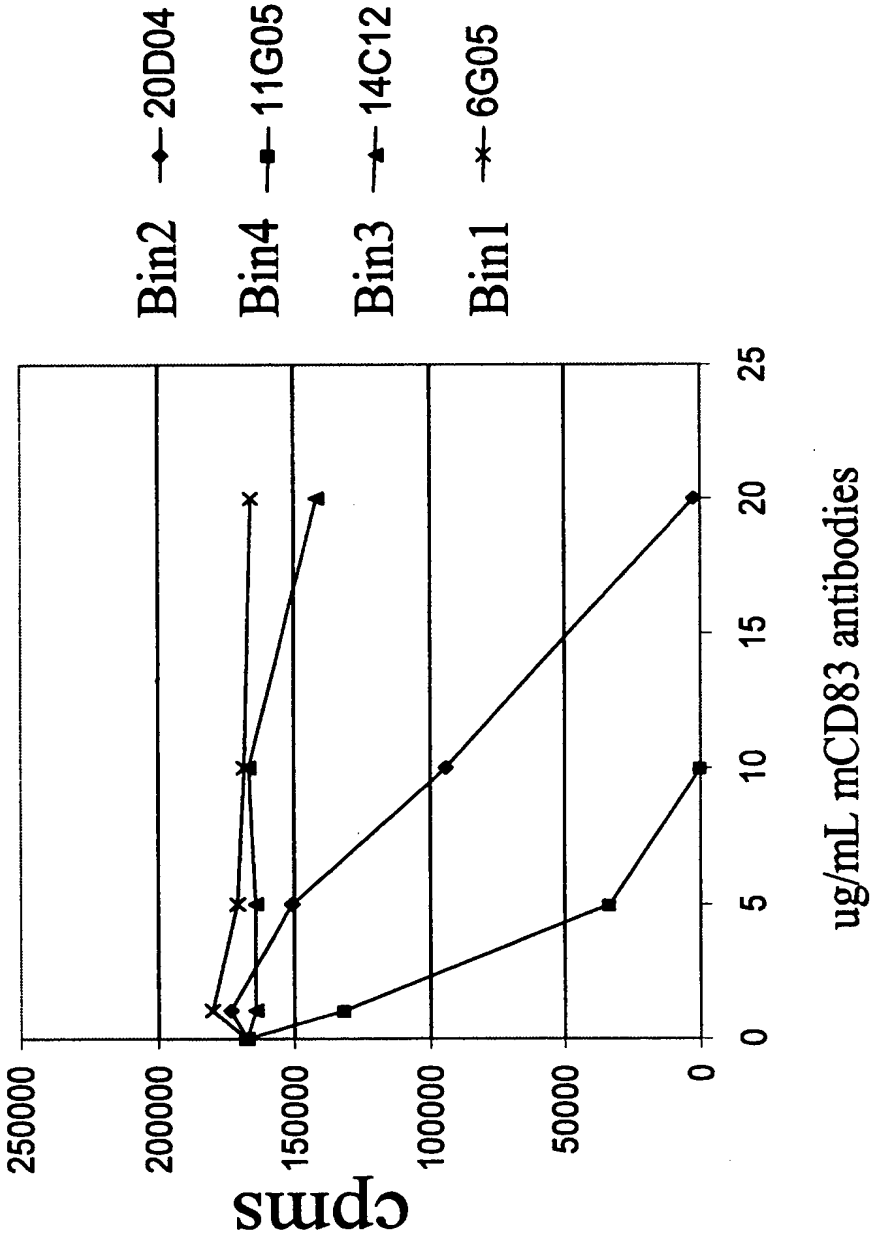

Bin2 20D04
Bin4 11G05
Bin3 14C12
Bin1 6G05
cpms
250000
200000
150000
100000
50000
0
0
5
10
15
20
25
ug/mL mCD83 antibodies

FIG. 12

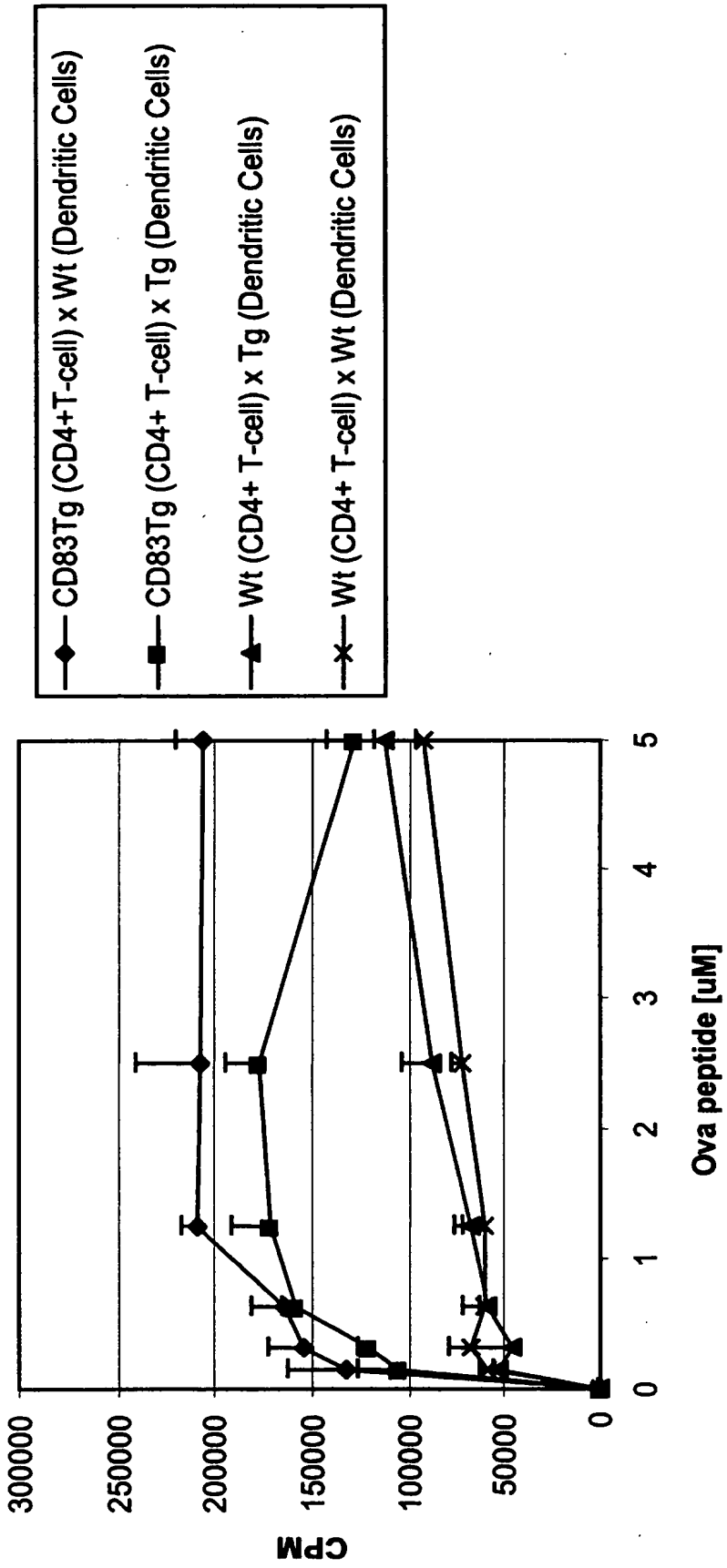

CD83Tg (CD4+T-cell) x Wt (Dendritic Cells)
CD83Tg (CD4+ T-cell) x Tg (Dendritic Cells)
Wt (CD4+ T-cell) x Tg (Dendritic Cells)
Wt (CD4+ T-cell) x Wt (Dendritic Cells)
CPM
300000
250000
200000
150000
100000
50000
0
0
1
2
3
4
5
Ova peptide [uM]

FIG. 13

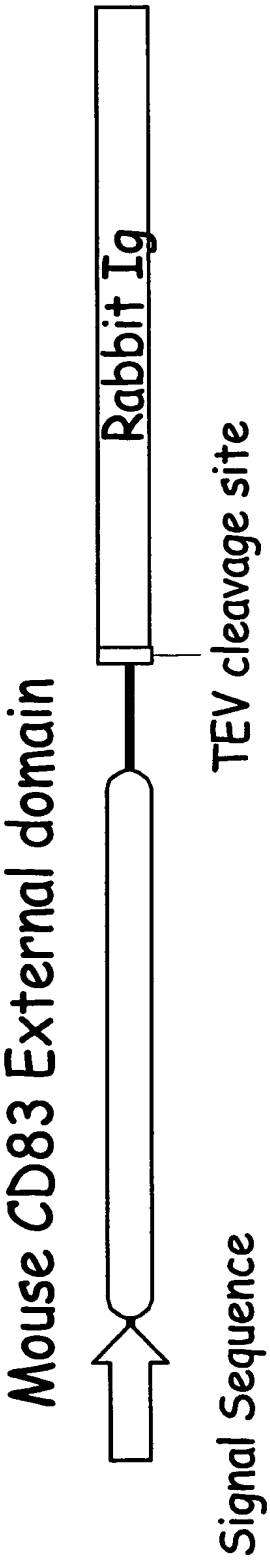

Rabbit Ig
TEV cleavage site
Mouse CD83 External domain
Signal Sequence

FIG. 14

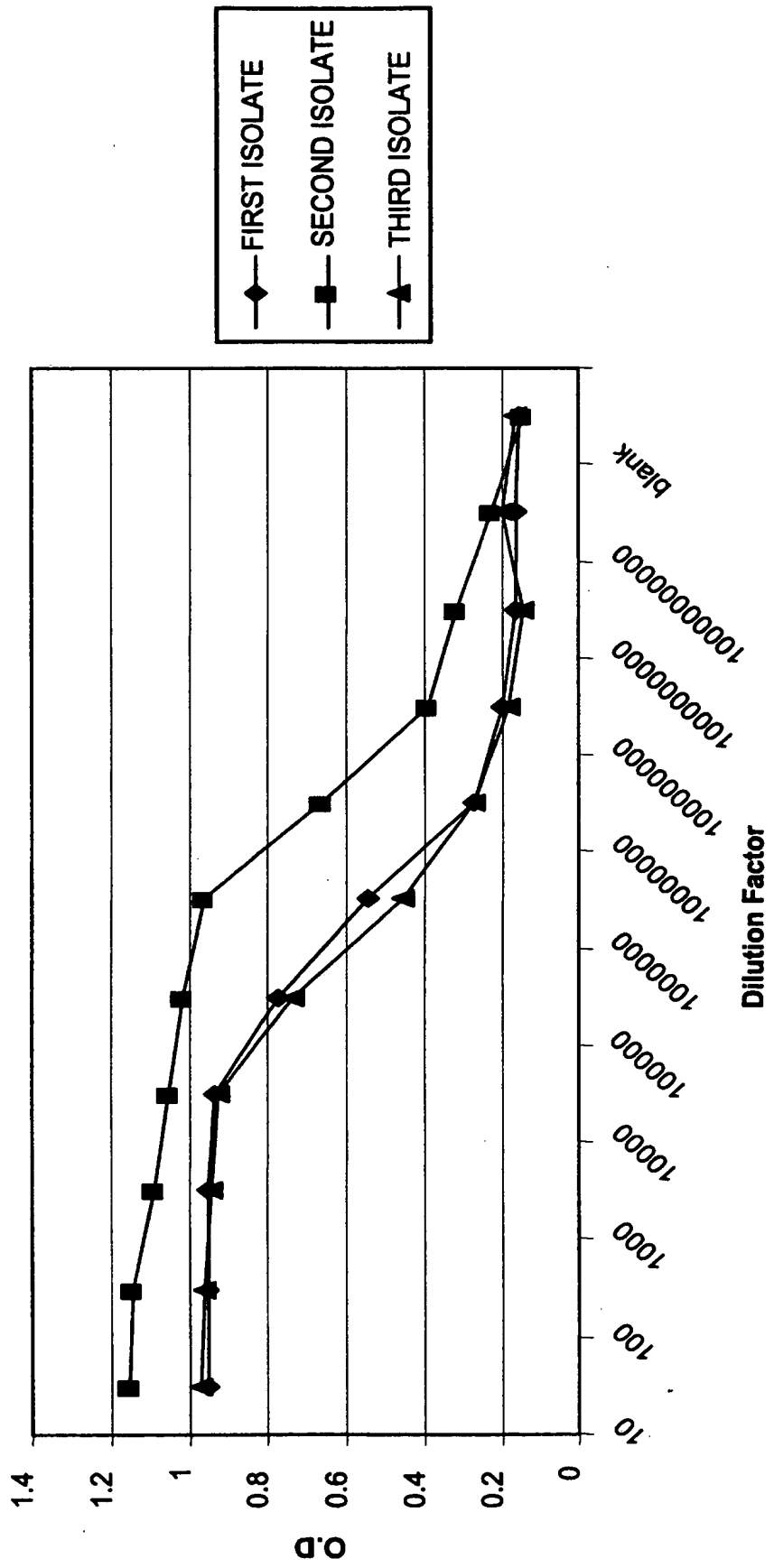

FIRST ISOLATE
SECOND ISOLATE
THIRD ISOLATE
O.D
1.4
1.2
1
0.8
0.6
0.4
0.2
0
Dilution Factor
blank
10
100
1000
10000
100000
1000000
10000000
100000000
1000000000

FIG. 15

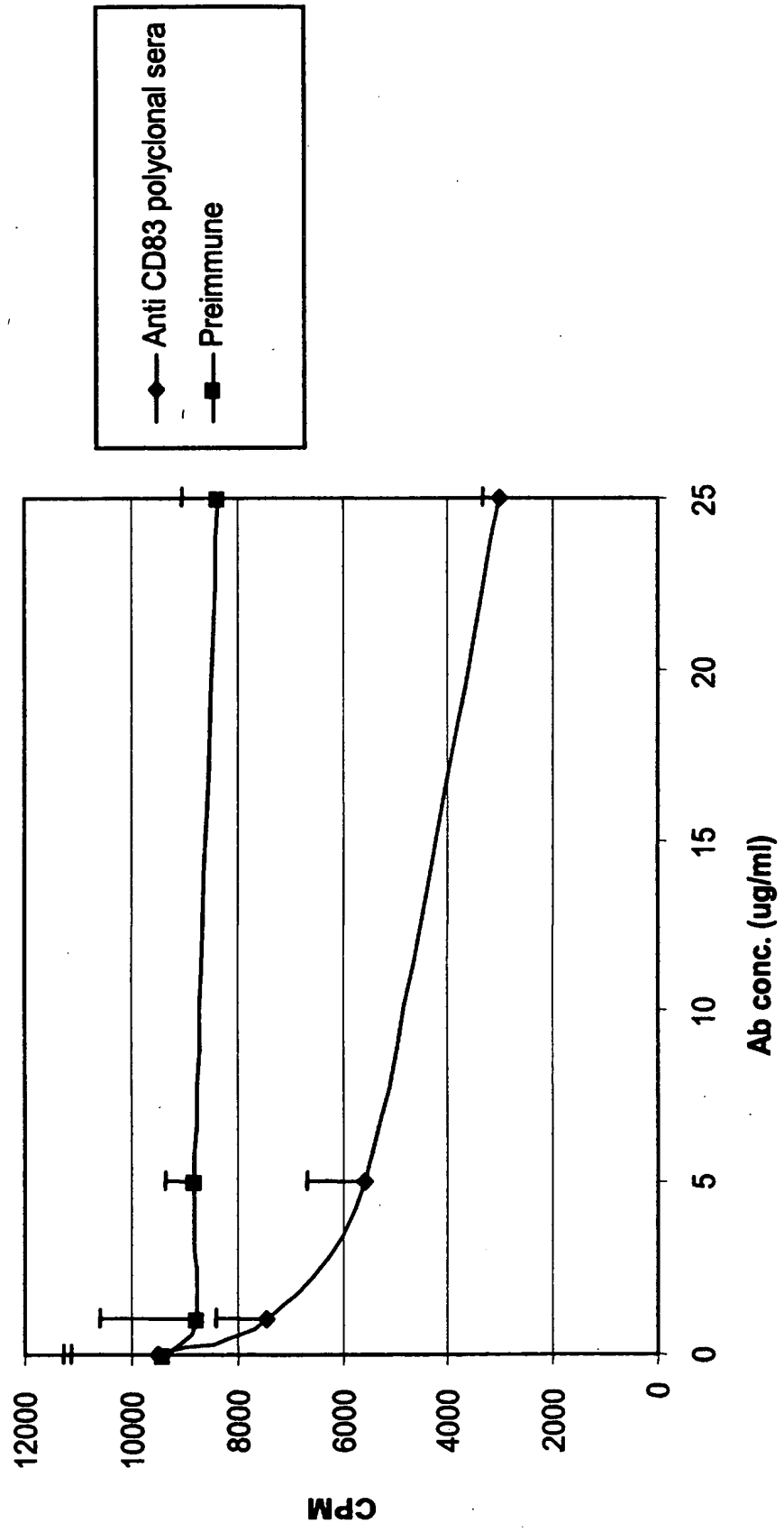

Anti CD83 polyclonal sera
Preimmune
CPM
12000
10000
8000
6000
4000
2000
0
Ab conc. (ug/ml)
0
5
10
15
20
25

FIG. 16

```
                                                                CDR1                                CDR2
20B08H    METGLRWLLLVAVLKGVQCQSVEESGGRLVTPGTPLTLTCTVSGFSLSSYDMTWVRQAPGKGLEWIGIIYAS-
 6G05H    METGLRWLLLVAVLKGVQCQSVEESGGRLVSPGTPLTLTCTASGFSLSSYDMSWVRQAPGKGLEYIGIISSS-
20D04H    METGLRWLLLVAVLKGVQCQSVEESGGRLVTPGTPLTLTCTVSGFSLSSYDMSWVRQAPGKGLEWIGIIYAS-
11G05     METGLRWLLLVAVLKGVQCQSVEESGGRLVTPGTPLTLTCTVSGFTISDYDLSWVRQAPGEGLKYIGFIAID-
14C12     METGLRWLLLVAVLKGVHCQSVEESGGRLVTPGTPLTLTCTASGFSRSSYDMSWVRQAPGKGLEWVGVISTA-

                                                    CDR3
20B08H    GSTYYASWAKGRFTISKTSTTVDLEVTSLTTEDTATYFCSREHAGYSGDTGHLWGPGTLVTVSSGQPKAPSVF
6G05H     GTTYYANWAKGRFTISKTSTTVDLKVTSPTIGDTATYFCAREGAGVSMT---LWGPGTLVTVSSGQPKAPSVF
20D04H    GSTYYASWAKGRVAISKTSTTVDLKITSPTTEDTATYFCAREDAGFSNA---LWGPGTLVTVSSGQPKAPSVF
11G05     GNPYYATWAKGRFTISKTSTTVDLKITAPTTEDTATYFCARGAGD-------LWGPGTLVTVSSGQPKAPSVF
14C12     YNSHYASWAKGRFTISRTSTTVDLKMTSLTTEDTATYFCARGGSWLD-----LWGQGTLVTVSSGQPKAPSVF

20B08H    PLAPCCGDTPSS
6G05H     PLAPCCGDTPSS
20D04H    PLAPCCGDTPSS
11G05     PLAPCCGDTPSS
14C12     PLAPCCGDTPSS
```

FIG. 17A

```
                                CDR1                                    CDR2
20B08L    MDMRAPTQLLGLLLLWLPGARC-AYDMTQTPASVEVAVGGTVTIKCQASQSISTY--
6G05L     MDMRAPTQLLGLLLLWLPGARC-AYDMTQTPASVEVAVGGTVAIKCQASQSVSSY--
20D04L    MDMRAPTQLLGLLLLWLPGARCADVVMTQTPASVSAAVGGTVTINCQASESISNY--
11G05L    MDTRAPTQLLGLLLLWLPGARCADVVMTQTPASVSAAVGGTVTINCQSSKNVYNNNW
14C12L    MDXRAPTQLLGLLLLWLPGARCA-LVMTQTPASVSAAVGGTVTINCQSSQSVYDNDE
                                                                  CDR3
20B08L    LDWYQQKPGQPPKLLIYDASDLASGVPSRFKGSGSGTQFTLTISDLECADAATYYCQQGYT---
6G05L      LAWYQQKPGQPPKPLIYEASMLAAGVSSRFKGSGSGTDFTLTISDLECDDAATYYCQQGYS---
20D04L    LSWYQQKPGQPPKLLIYRTSTLASGVSSRFKGSGSGTEYTLTISGVQCDDVATYYCQCTSGG-
11G05L    LSWFQQKPGQPPKLLIYYASTLASGVPSRFRGSGSGTQFTLTISDVQCDDAATYYCAG-DYSS--S
14C12L    LSWYQQKPGQPPKLLIYLASKLASGVPSRFKGSGSGTQFALTISGVQCDDAATYYCQATHYSS--D-

20B08L    -HSNVDNVFGGGTEVVVKGDPVAPTVLLFPPSS
6G05L     -ISDIDNAFGGGTEVVVKGDPVAPTVLLFPPSS
20D04L    KFISDGAAFGGGTEVVVKGDPVAPTVLLFPPSS
11G05L        SDNGFGGGTEVVVKGDPVAPTVLLFPPSS
14C12L    -   WYLTFGGGTEVVVKGDPVAPTVLLFPPSS
```

FIG. 17B

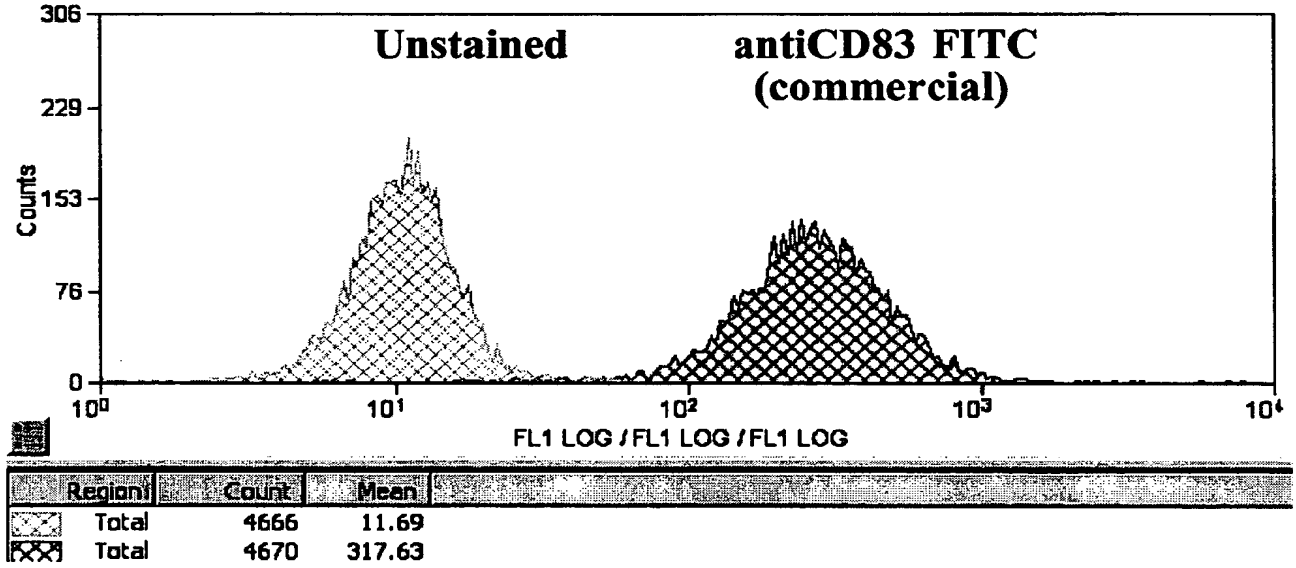

Unstained
antiCD83 FITC
(commercial)
306
229
153
76
0
Counts
10⁰
10¹
10²
10³
10⁴
FL1 LOG / FL1 LOG / FL1 LOG
Region
Count
Mean
Total
4666
11.69
Total
4670
317.63

FIG. 18

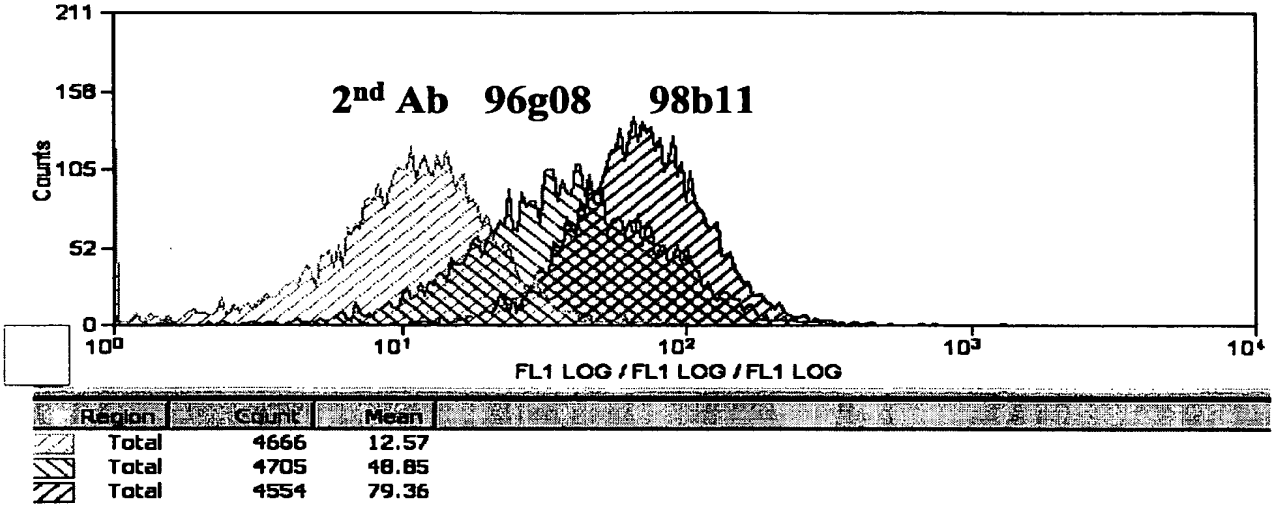


FIG. 19A

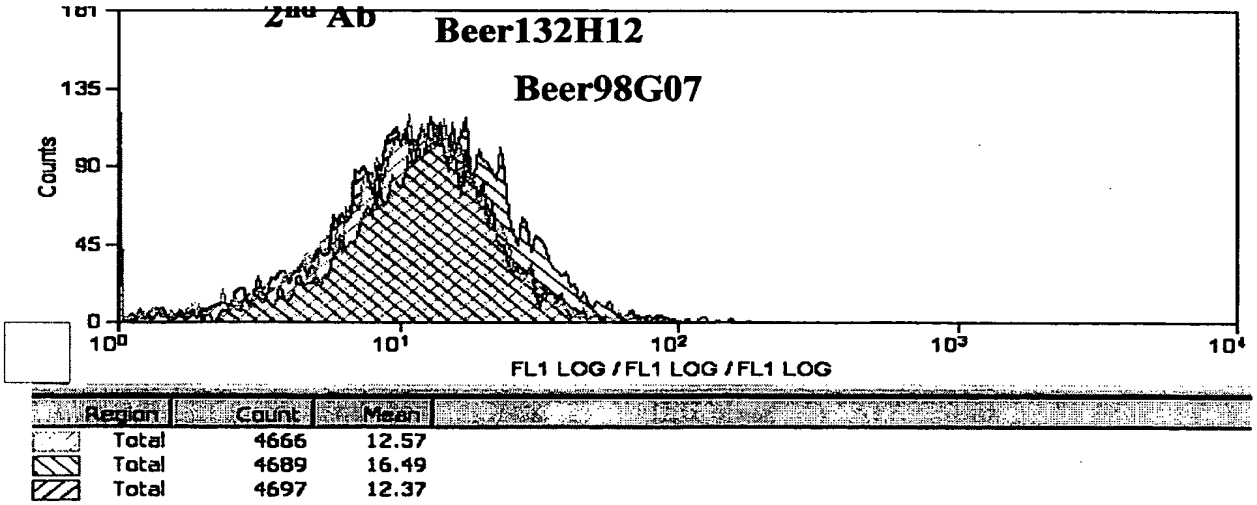


FIG. 19B

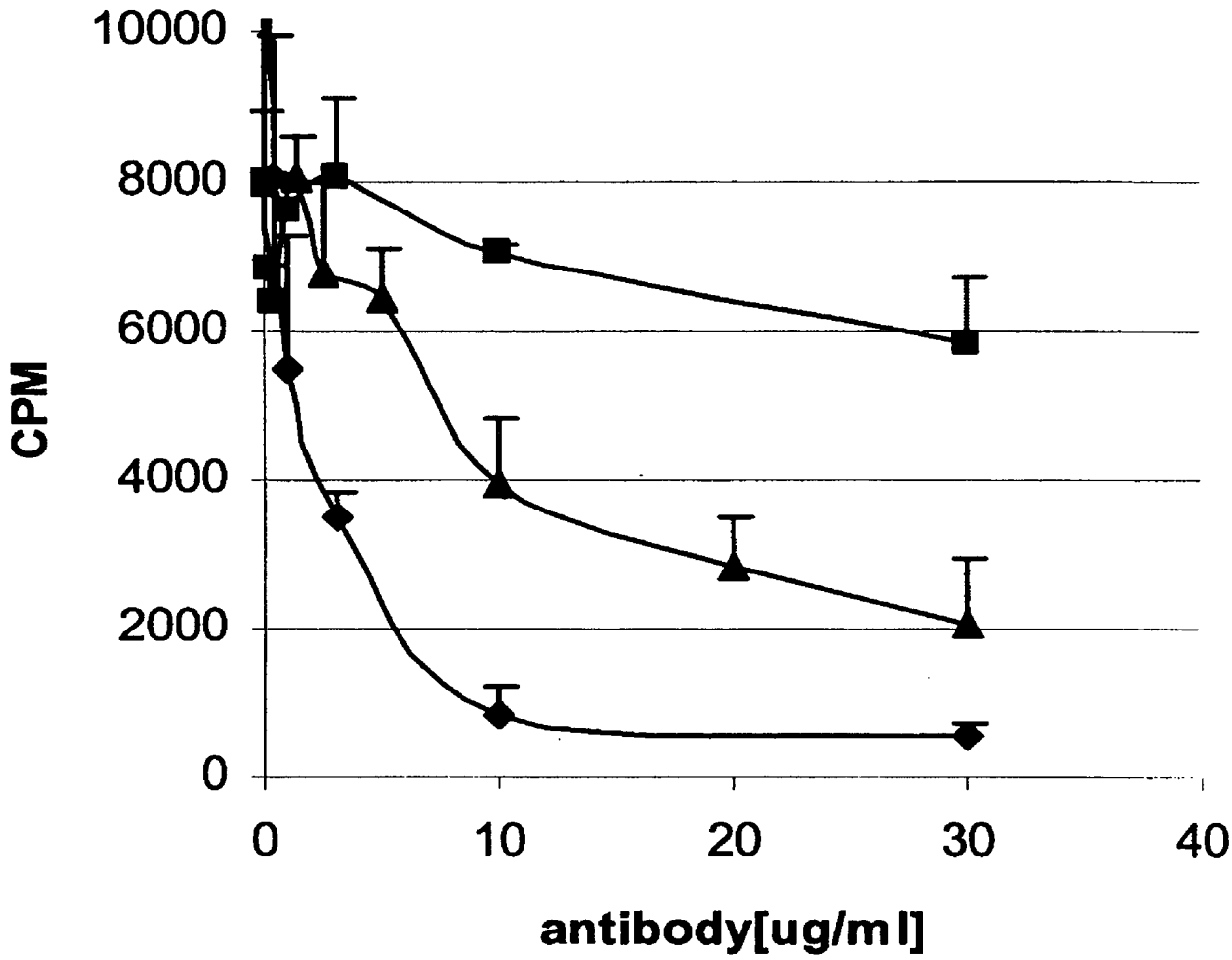


FIG. 20

DNA:

ATGGACACGAGGGCCCCCACTCAGCTGCTGGGGCTCCTGCTGCTCTGGCTCCCAGGTGCCACATTTGCG
CAAGTGCTGACCCAGACTGCATCGCCCGTGTCTGCACCTGTGGGAGGCACAGTCACCATCAATTGCCA
GTCCAGTCAGAGTGTTTATAATAACGACTTCTTATCCTGGTATCAGCAGAAACCAGGGCAGCCTCCCAA
ACTCCTGATCTATTATGCATCCACTCTGGCATCTGGGGTCCCATCCCGGTTCAAAGGCAGTGGATCTGG
GACACAGTTCACTCTCACCATCAGCGACCTGGAGTGTGACGATGCTGCCACTTACTACTGTACAGGCA
CTTATGGTAATAGTGCTTGGTACGAGGATGCTTTCGGCGGAGGGACCGAGGTGGTGGTCAAACGTACG
CCAGTTGCACCTACTGTCCTCCTCTTCCCACCATCTAGCGCTGAGCTGGCAACTGGAACAGCCACCATC
GTGTGCGTGGCGAATAAATACTTTCCCGATGGCACCGTCACCTGGAAGGTGGATGGCATCACCCAAAG
CAGCGGCATCAATAACAGTAGAACACCGCAGAATTCTGCAGATTGTACCTACAACCTCAGCAGTACTC
TGACACTGAGCAGCGACGAGTACAACAGCCACGACGAGTACACCTGCCAGGTGGCCCAGGACTCAGG
CTCACCGGTCGTCCAGAGCTTCAGTAGGAAGAGCTGTTAG

Protein:

MDTRAPTQLLGLLLLWLPGATFAQVLTQTASPVSAPVGGTVTINCQSSQSVYNNDFLSWYQQKPGQPPK
LLIYYASTLASGVPSRFKGSGSGTQFTLTISDLECDDAATYYCTGTYGNSAWYEDAFGGGTEVVVKRTPV
APTVLLFPPSSAELATGTATIVCVANKYFPDGTVTWKVDGITQSSGINNSRTPQNSADCTYNLSSTLTLSSD
EYNSHDEYTCQVAQDSGSPVVQSFSRKSC

FIG. 21

DNA:

ATGGAGACTGGGCTGCGCTGGCTTCTCCTGGTCGCTGTGCTCAAAGGTGTCCAGTGTCAGTCGGTGGAGGAGTCCGGGGGTCGCCTGGTCACACCTGG
GACACCCCTGACACTCACCTGCACAGTGTCTGGAATCGACCTCAGTAGCGATGGAATAAGCTGGGTCCGCCAGGCTCCAGGGAAGGGGCTGGAATGG
ATCGGAATCATTAGTAGTGGTGGTAACACATACTACGCGAGCTGGGCAAAAGGCCGATTCACCATCTCCAGAACCTCGACCACGGTGGATCTGAAGAT
GACCAGTCTGACAACCGAGGACACGGCCACCTATTTCTGTGCCAGAGTTGTTGGTGGTACTTATAGCATCTGGGGCCAGGGCACCCTCGTCACCGTCTC
GAGCGCTTCTACAAAGGGCCCATCTGTCTATCCACTGGCCCCTGGATCTGCTGCCCAAACTAACTCCATGGTGACCCTGGGATGCCTGGTCAAGGGCTA
TTTCCCTGAGCCAGTGACAGTGACCTGGAACTCTGGATCCCTGTCCAGCGGTGTGCACACCTTCCCAGCTGTCCTGCAGTCTGACCTCTACACTCTGAGC
AGCTCAGTGACTGTCCCCTCCAGCACCTGGCCCAGCGAGACCGTCACCTGCAACGTTGCCCACCCGGCCAGCAGCACCAAGGTGGACAAGAAAATTGT
GCCCAGGGATTGTGGTTGTAAGCCTTGCATATGTACAGTCCCAGAAGTATCATCTGTCTTCATCTTCCCCCCAAAGCCCAAGGATGTGCTCACCATTACT
CTGACTCCTAAGGTCACGTGTGTTGTGGTAGACATCAGCAAGGATGATCCCGAGGTCCAGTTCAGCTGGTTTGTAGATGATGTGGAGGTGCACACAGC
TCAGACGCAACCCCGGGAGGAGCAGTTCAACAGCACTTTCCGCTCAGTCAGTGAACTTCCCATCATGCACCAGGACTGGCTCAATGGCAAGGAGTTCA
AATGCAGGGTCAACAGTGCAGCTTTCCCTGCCCCCATCGAGAAAACCATCTCCAAAACCAAAGGCAGACCGAAGGCTCCACAGGTGTACACCATTCCA
CCTCCCAAGGAGCAGATGGCCAAGGATAAAGTCAGTCTGACCTGCATGATAACAGACTTCTTCCCTGAAGACATTACTGTGGAGTGGCAGTGGAATGG
GCAGCCAGCGGAGAACTACAAGAACACTCAGCCCATCATGGACACAGATGGCTCTTACTTCGTCTACAGCAAGCTCAATGTGCAGAAGAGCAACTGG
GAGGCAGGAAATACTTTCACCTGCTCTGTGTTACATGAGGGCCTGCACAACCACCATACTGAGAAGAGCCTCTCCCACTCTCCTGGTAAATGA

Protein:

METGLRWLLLVAVLKGVQCQSVEESGGRLVTPGTPLTLTCTVSGIDLSSDGISWVRQAPGKGLEWIGIIS
SGGNTYYASWAKGRFTISRTSTTVDLKMTSLTTEDTATYFCARVVGGTYSIWGQGTLVTVSSASTKGPS
VYPLAPGSAAQTNSMVTLGCLVKGYFPEPVTVTWNSGSLSSGVHTFPAVLQSDLYTLSSSVTVPSSTWPS
ETVTCNVAHPASSTKVDKKIVPRDCGCKPCICTVPEVSSVFIFPPKPKDVLTITLTPKVTCVVVDISKDDPE
VQFSWFVDDVEVHTAQTQPREEQFNSTFRSVSELPIMHQDWLNGKEFKCRVNSAAFPAPIEKTISKTKGR
PKAPQVYTIPPPKEQMAKDKVSLTCMITDFFPEDITVEWQWNGQPAENYKNTQPIMDTDGSYFVYSKLN
VQKSNWEAGNTFTCSVLHEGLHNHHTEKSLSHSPGK

FIG. 22

DNA:

ATGGACACGAGGGCCCCCACTCAGCTGCTGGGGCTCCTGCTGCTCTGGCTCCCAGGTGCCACATTTGCCC
AAGCCGTGGTGACCCAGACTACATCGCCCGTGTCTGCACCTGTGGGAGGCACAGTCACCATCAATTGCCA
GTCCAGTCAGAGTGTTTATGGTAACAACGAATTATCCTGGTATCAGCAGAAACCAGGGCAGCCTCCCAAG
CTCCTGATCTACCAGGCATCCAGCCTGGCATCTGGGGTCCCATCGCGGTTCAAAGGCAGTGGATCTGGGA
CACAGTTCACTCTCACCATCAGCGACCTGGAGTGTGACGATGCTGCCACTTACTACTGTCTAGGCGAATAT
AGCATTAGTGCTGATAATCATTTCGGCGGAGGGACCGAGGTGGTGGTCAAACGTACGCCAGTTGCACCTA
CTGTCCTCCTCTTCCCACCATCTAGCGCTGAGCTGGCAACTGGAACAGCCACCATCGTGTGCGTGGCGAAT
AAATACTTTCCCGATGGCACCGTCACCTGGAAGGTGGATGGCATCACCCAAAGCAGCGGCATCAATAACA
GTAGAACACCGCAGAATTCTGCAGATTGTACCTACAACCTCAGCAGTACTCTGACACTGAGCAGCGACGA
GTACAACAGCCACGACGAGTACACCTGCCAGGTGGCCCAGGACTCAGGCTCACCGGTCGTCCAGAGCTTC
AGTAGGAAGAGCTGTTAG

Protein:

MDTRAPTQLLGLLLLWLPGATFAQAVVTQTTSPVSAPVGGTVTINCQSSQSVYGNNELSWYQQKPGQPP
KLLIYQASSLASGVPSRFKGSGSGTQFTLTISDLECDDAATYYCLGEYSISADNHFGGGTEVVVKRTPVAP
TVLLFPPSSAELATGTATIVCVANKYFPDGTVTWKVDGITQSSGINNSRTPQNSADCTYNLSSTLTLSSDEY
NSHDEYTCQVAQDSGSPVVQSFSRKSC

FIG. 23

DNA:

ATGGAGACTGGGCTGCGCTGGCTTCTCCTGGTCGCTGTGCTCAAAGGTGTCCAGTGTCAGTCGGTGGAGGAGTCCGGGGGTCGC
CTGGTCACGCCTGGGACACCCCTGACACTCACCTGCACAGTCTCTGGAATCGACCTCAGTAGCAATGCAATGATCTGGGTCCGC
CAGGCTCCAAGGGAGGGGCTGGAATGGATCGGAGCCATGGATAGTAATAGTAGGACGTACTACGCGACCTGGGCGAAAGGCC
GATTCACCATCTCCAGAACCTCGTCGATTACGGTGGATCTGAAAATCACCAGTCCGACAACCGAGGACACGGCCACCTATTTCT
GTGCCAGAGGGGATGGTGGCAGTAGTGATTATACAGAGATGTGGGGCCCAGGGACCCTCGTCACCGTCTCGAGCGCTTCTACA
AAGGGCCCATCTGTCTATCCACTGGCCCCTGGATCTGCTGCCCAAACTAACTCCATGGTGACCCTGGGATGCCTGGTCAAGGGC
TATTTCCCTGAGCCAGTGACAGTGACCTGGAACTCTGGATCCCTGTCCAGCGGTGTGCACACCTTCCCAGCTGTCCTGCAGTCT
GACCTCTACACTCTGAGCAGCTCAGTGACTGTCCCCTCCAGCACCTGGCCCAGCGAGACCGTCACCTGCAACGTTGCCCACCCG
GCCAGCAGCACCAAGGTGGACAAGAAAATTGTGCCCAGGGATTGTGGTTGTAAGCCTTGCATATGTACAGTCCCAGAAGTATC
ATCTGTCTTCATCTTCCCCCCAAAGCCCAAGGATGTGCTCACCATTACTCTGACTCCTAAGGTCACGTGTGTTGTGGTAGACATC
AGCAAGGATGATCCCGAGGTCCAGTTCAGCTGGTTTGTAGATGATGTGGAGGTGCACACAGCTCAGACGCAACCCCGGGAGGA
GCAGTTCAACAGCACTTTCCGCTCAGTCAGTGAACTTCCCATCATGCACCAGGACTGGCTCAATGGCAAGGAGTTCAAATGCAG
GGTCAACAGTGCAGCTTTCCCTGCCCCCATCGAGAAAACCATCTCCAAAACCAAAGGCAGACCGAAGGCTCCACAGGTGTACA
CCATTCCACCTCCCAAGGAGCAGATGGCCAAGGATAAAGTCAGTCTGACCTGCATGATAACAGACTTCTTCCCTGAAGACATTA
CTGTGGAGTGGCAGTGGAATGGGCAGCCAGCGGAGAACTACAAGAACACTCAGCCCATCATGGACACAGATGGCTCTTACTTC
GTCTACAGCAAGCTCAATGTGCAGAAGAGCAACTGGGAGGCAGGAAATACTTTCACCTGCTCTGTGTTACATGAGGGCCTGCA
CAACCACCATACTGAGAAGAGCCTCTCCCACTCTCCTGGTAAATGA

Protein:

METGLRWLLLVAVLKGVQCQSVEESGGRLVTPGTPLTLTCTVSGIDLSSNAMIWVRQAPREGLEWIGAMDSNSRTYYATWA
KGRFTISRTSSITVDLKITSPTTEDTATYFCARGDGGSSDYTEMWGPGTLVTVSSASTKGPSVYPLAPGSAAQTNSMVTLGCLV
KGYFPEPVTVTWNSGSLSSGVHTFPAVLQSDLYTLSSSVTVPSSTWPSETVTCNVAHPASSTKVDKKIVPRDCGCKPCICTVPE
VSSVFIFPPKPKDVLTITLTPKVTCVVVDISKDDPEVQFSWFVDDVEVHTAQTQPREEQFNSTFRSVSELPIMHQDWLNGKEFK
CRVNSAAFPAPIEKTISKTKGRPKAPQVYTIPPPKEQMAKDKVSLTCMITDFFPEDITVEWQWNGQPAENYKNTQPIMDTDGS
YFVYSKLNVQKSNWEAGNTFTCSVLHEGLHNHHTEKSLSHSPGK

FIG. 24

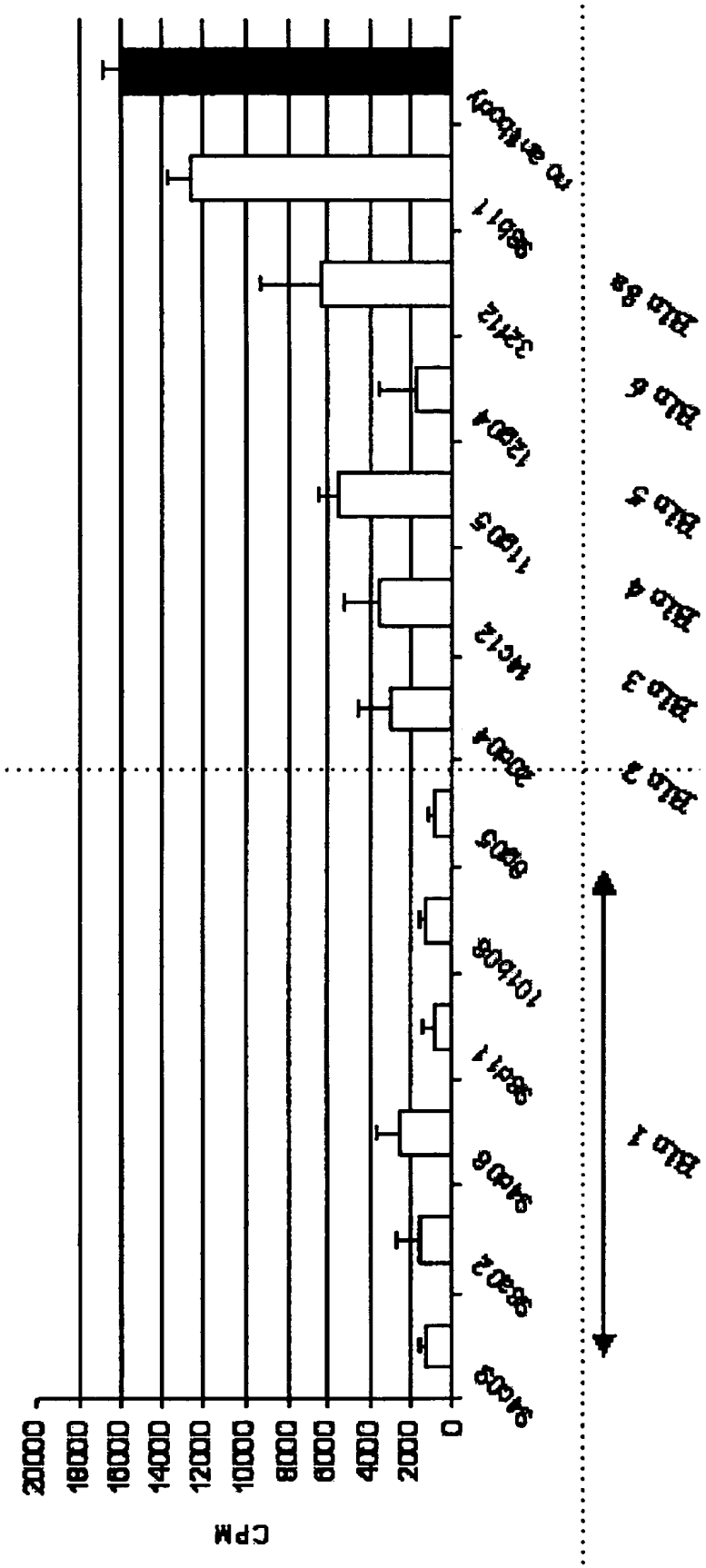

CPM
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
Rep 1
Rep 2
Rep 3
Rep 4
Rep 5
Rep 6
Rep 7
Rep 8

FIG. 25A

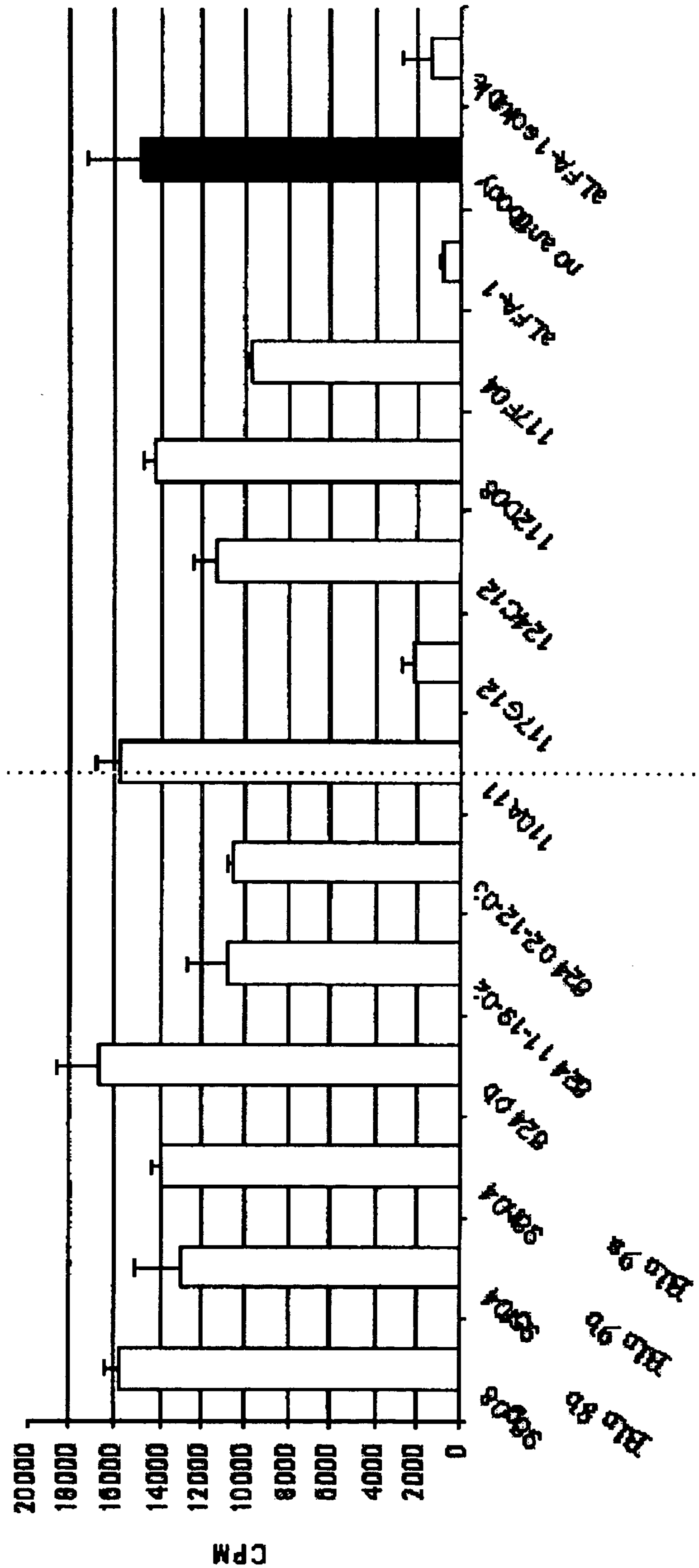

CPM
20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
aLFA-1
no antibody
117F04
112D08
124C12
117G12
110A11

FIG. 25B

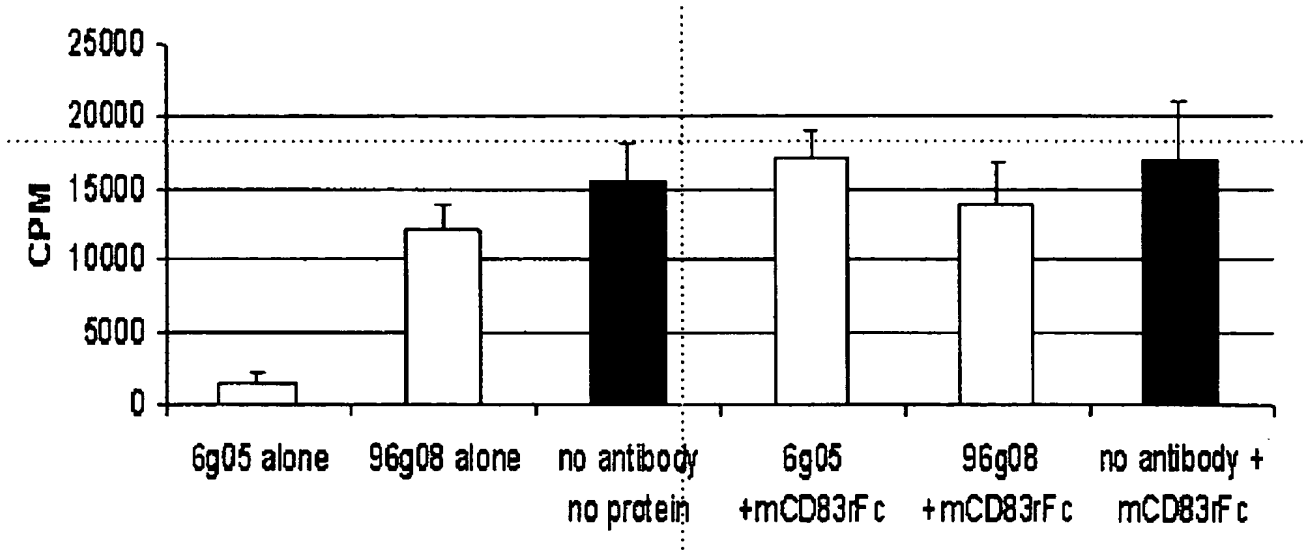

25000
20000
15000
10000
5000
0
CPM
6g05 alone
96g08 alone
no antibody
no protein
6g05
+mCD83rFc
96g08
+mCD83rFc
no antibody +
mCD83rFc

FIG. 26

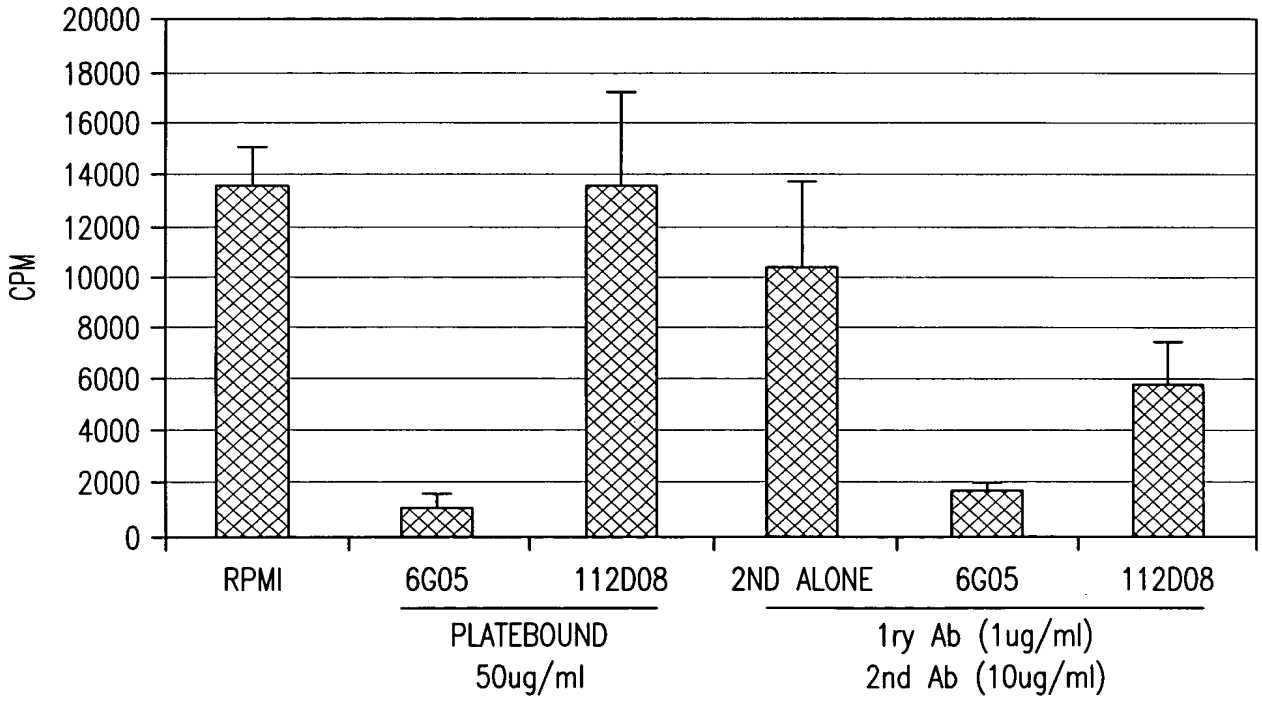

20000
18000
16000
14000
12000
10000
8000
6000
4000
2000
0
CPM
RPMI
6G05
112D08
2ND ALONE
6G05
112D08
PLATEBOUND
50ug/ml
1ry Ab (1ug/ml)
2nd Ab (10ug/ml)

FIG. 27

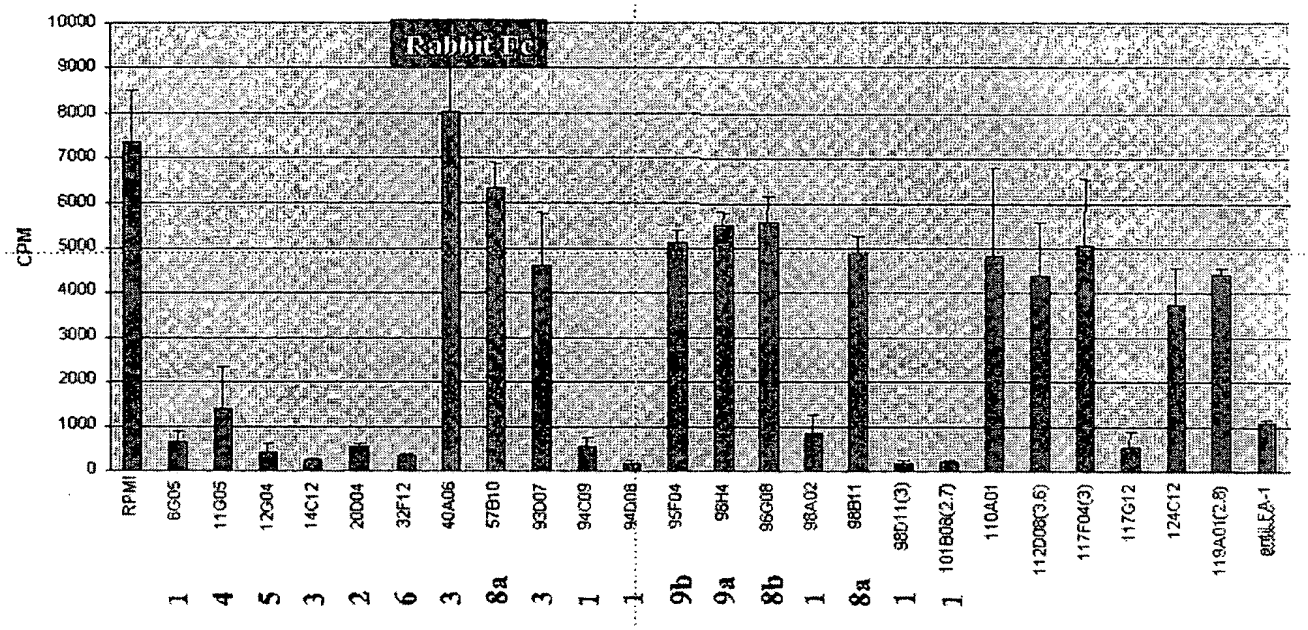

Rabbit Fc
CPM
10000
9000
8000
7000
6000
5000
4000
3000
2000
1000
0
RPMI
6G05
11G05
12G04
14C12
20D04
32F12
40A06
57B10
93D07
94C09
94D08
95F04
98H4
96G08
98A02
98B11
98D11(3)
101B08(2.7)
110A01
112D08(3.6)
117F04(3)
117G12
124C12
119A01(2.8)
1
4
5
3
2
6
3
8a
3
1
1
9b
9a
8b
1
8a
1
1

FIG. 28

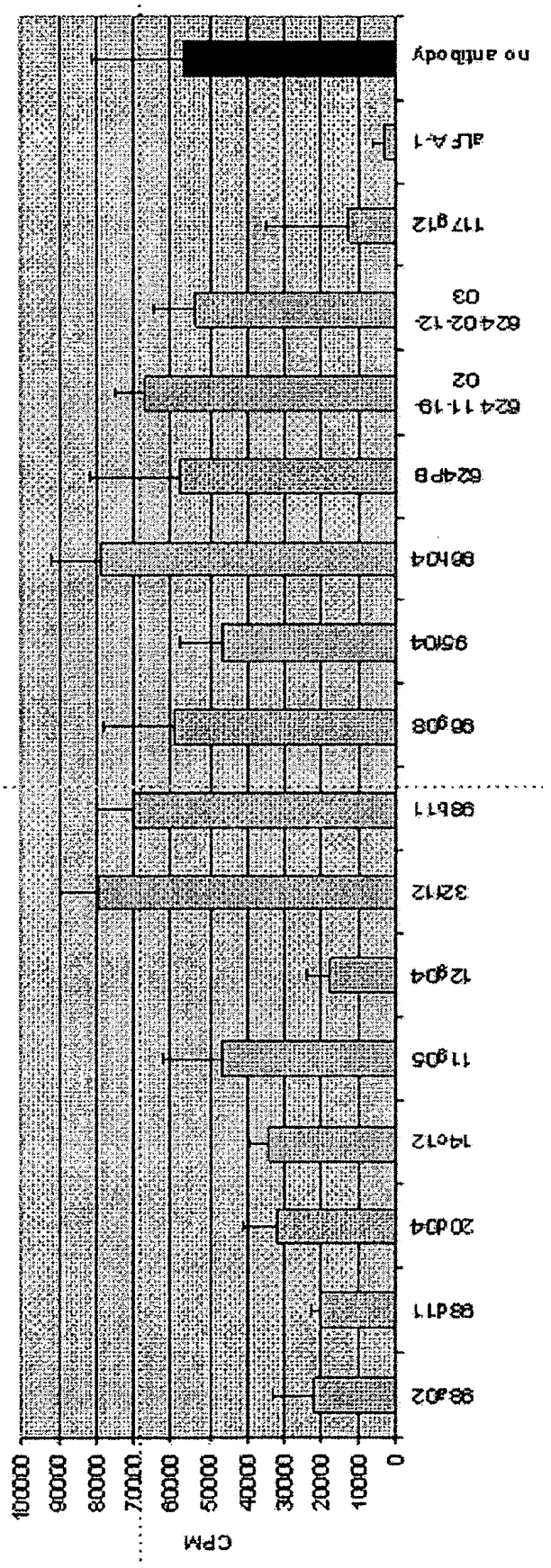

no antibody
aLF A-1
117g12
624G2-12-03
624-11-19-02
624P8
98h04
95i04
98g08
98h11
32i12
12g04
11g05
14o12
20d04
98d11
98a02
CPM
100000
90000
80000
70000
60000
50000
40000
30000
20000
10000
0

FIG. 29

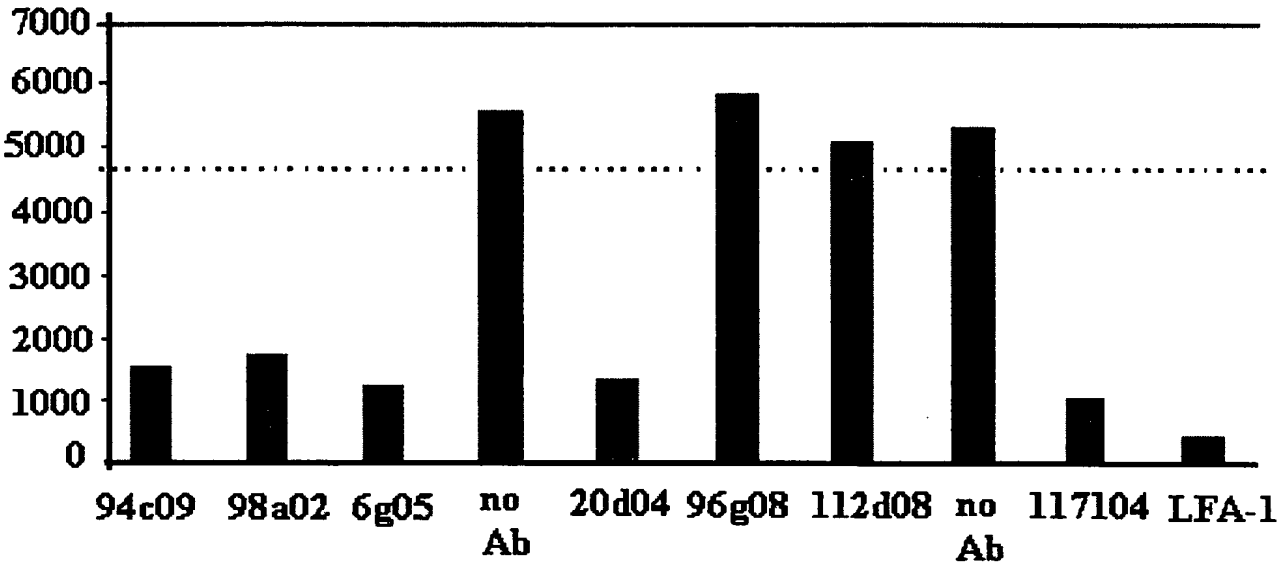

7000
6000
5000
4000
3000
2000
1000
0
94c09
98a02
6g05
no Ab
20d04
96g08
112d08
no Ab
117104
LFA-1

FIG. 30

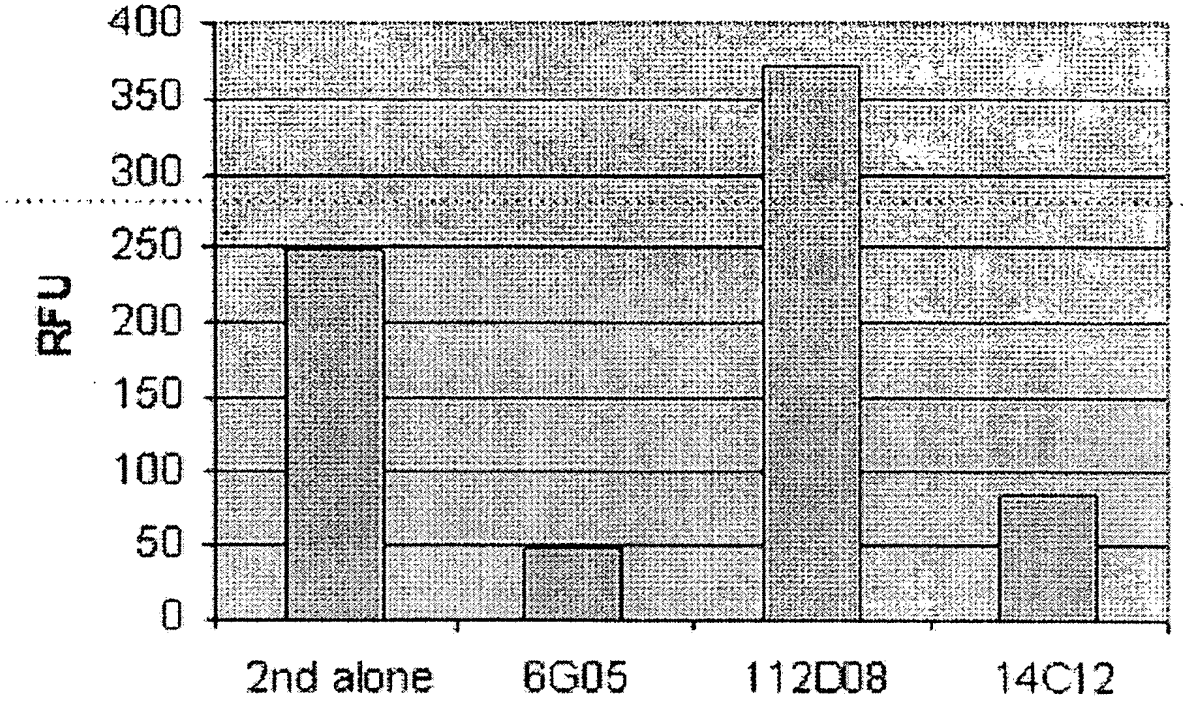


FIG. 31A

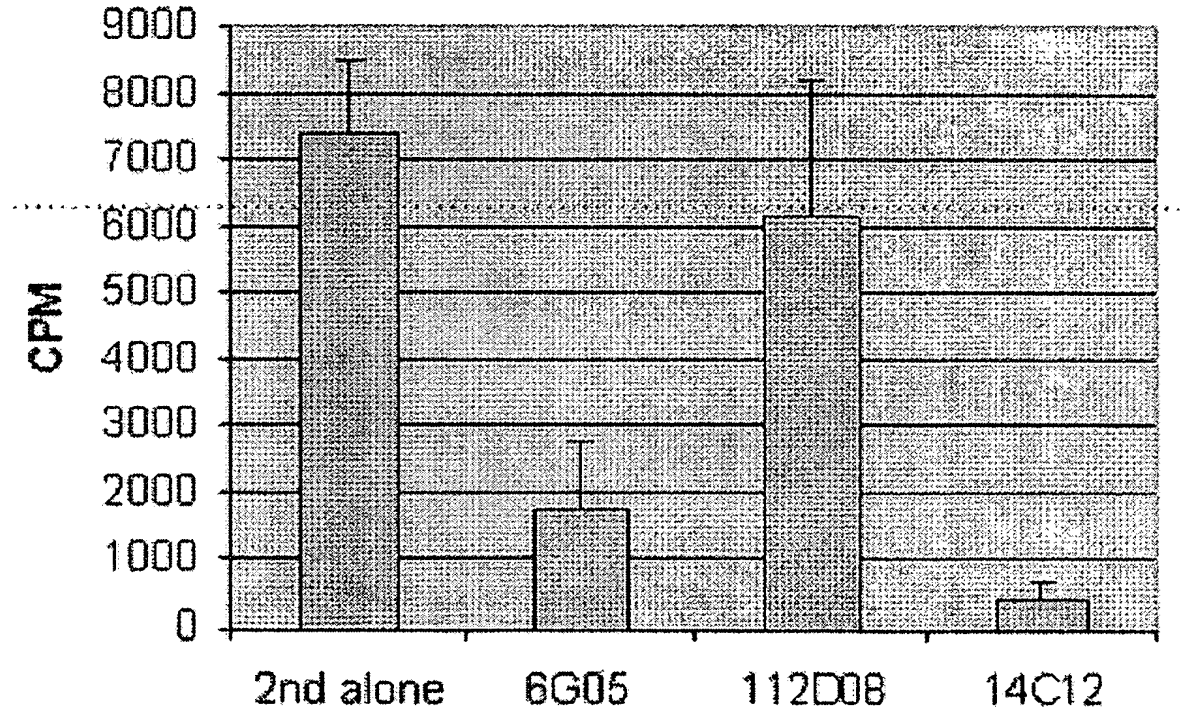


FIG. 31B

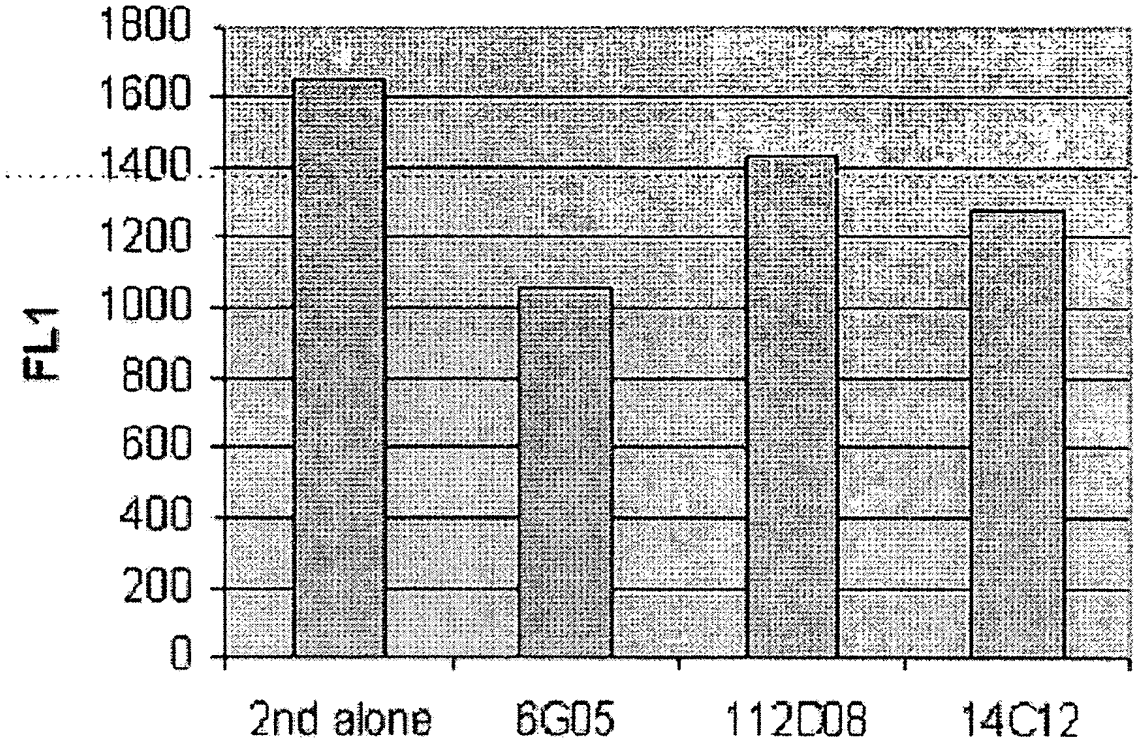


FIG. 32A

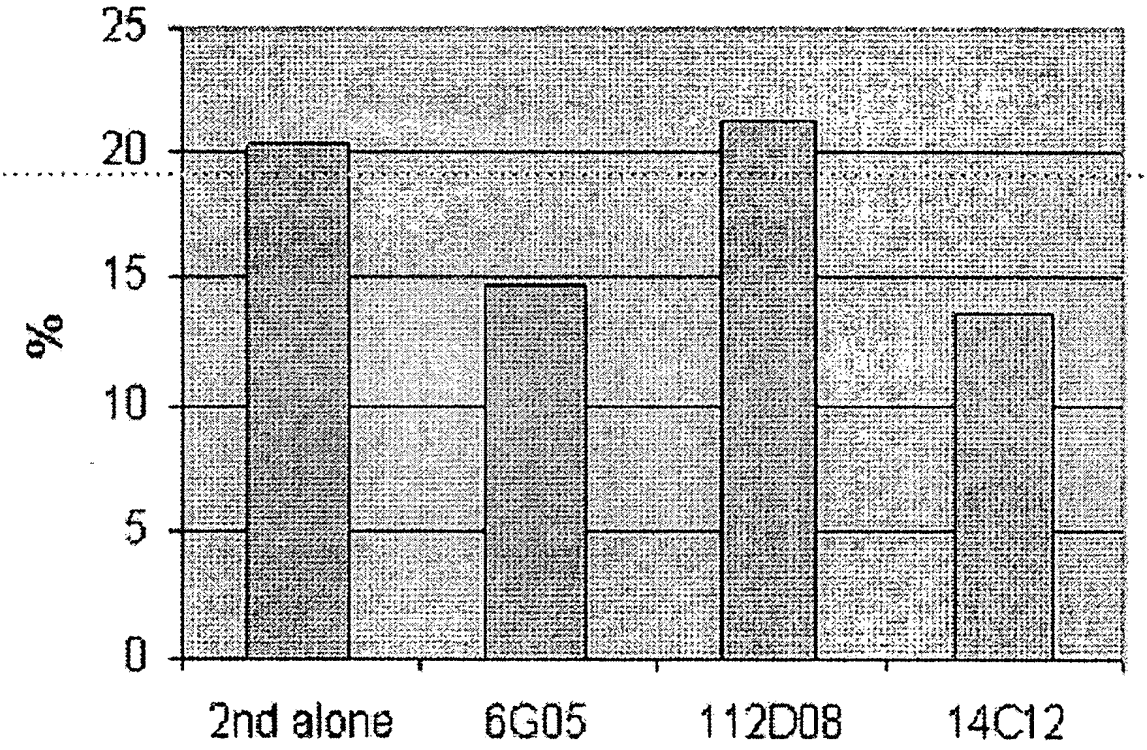


FIG. 32B

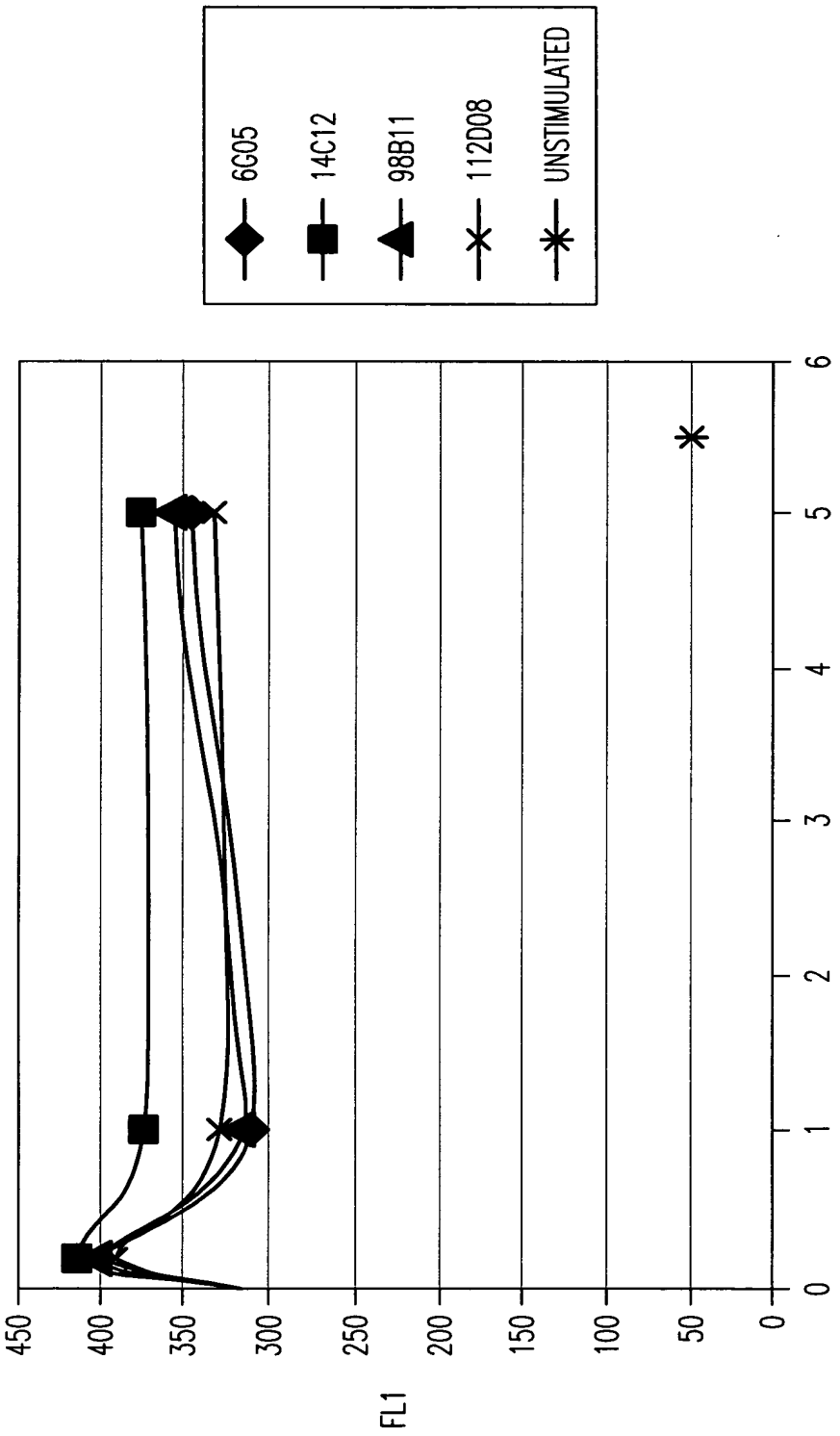

6G05
14C12
98B11
112D08
UNSTIMULATED
FL1
450
400
350
300
250
200
150
100
50
0
0
1
2
3
4
5
6
1ry Ab CONC. [ug/ml]

FIG. 33

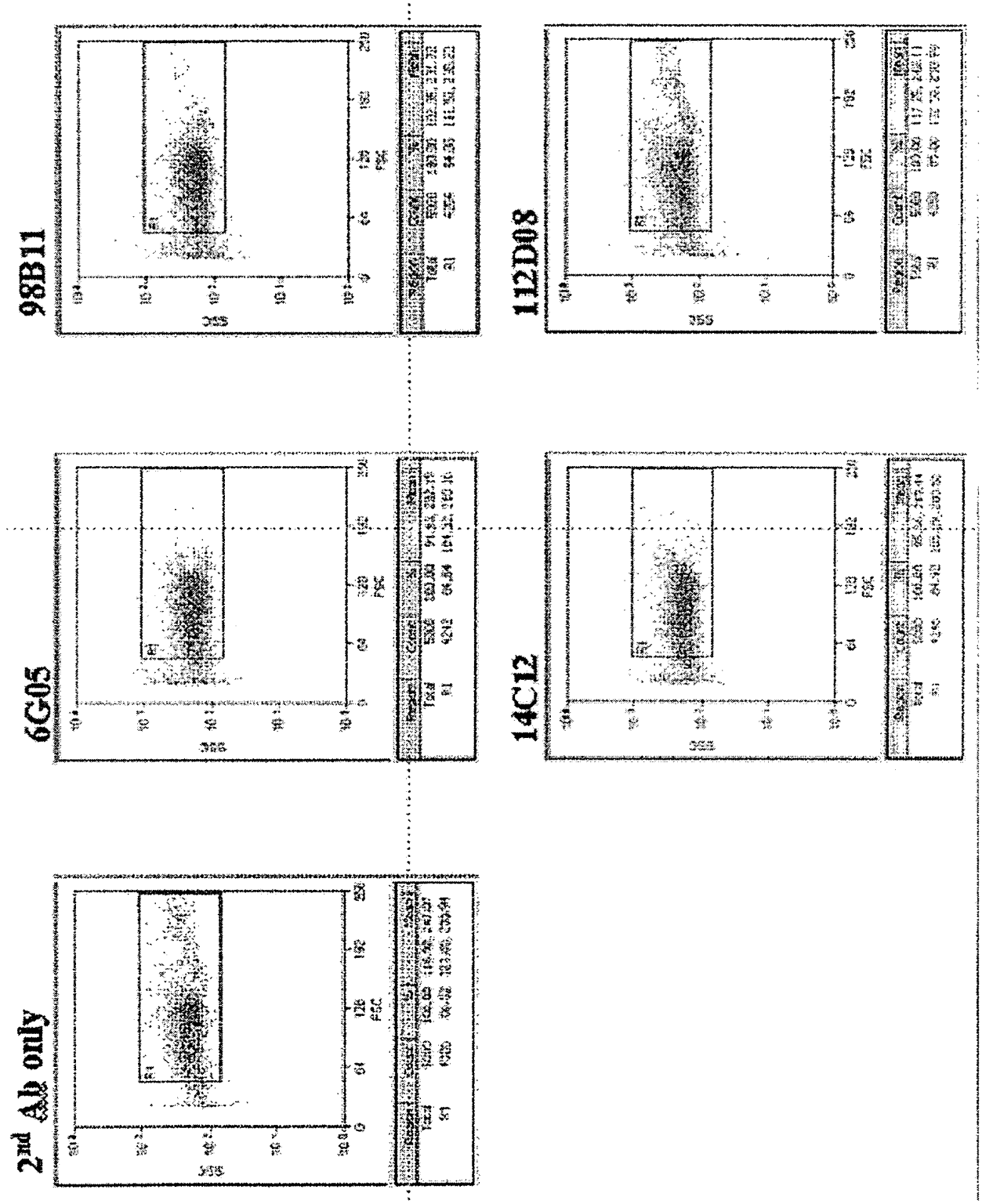


FIG. 34

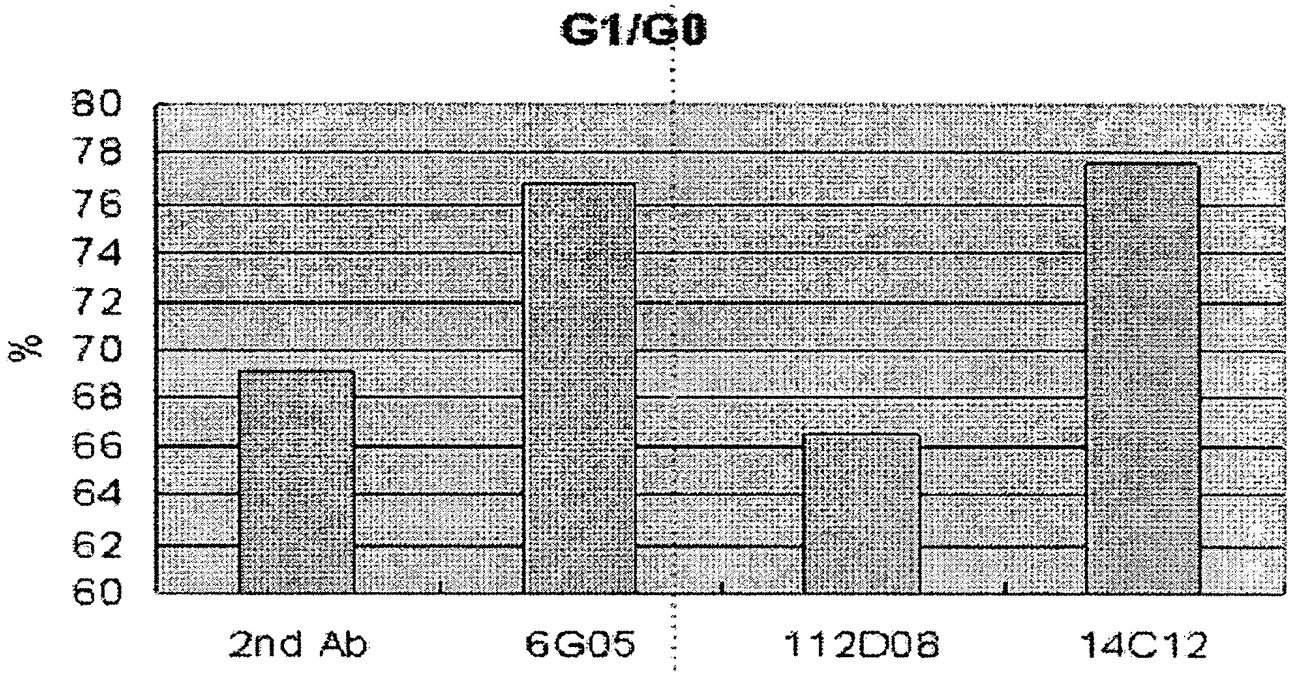


FIG. 35A

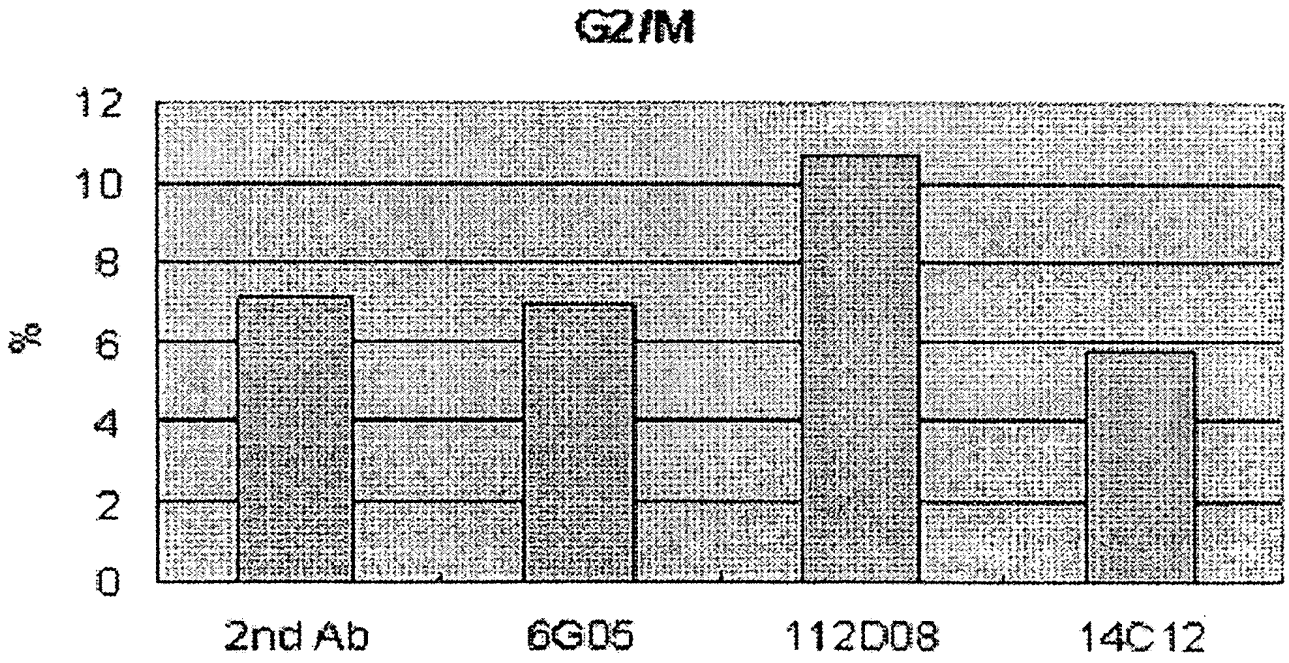


FIG. 35B

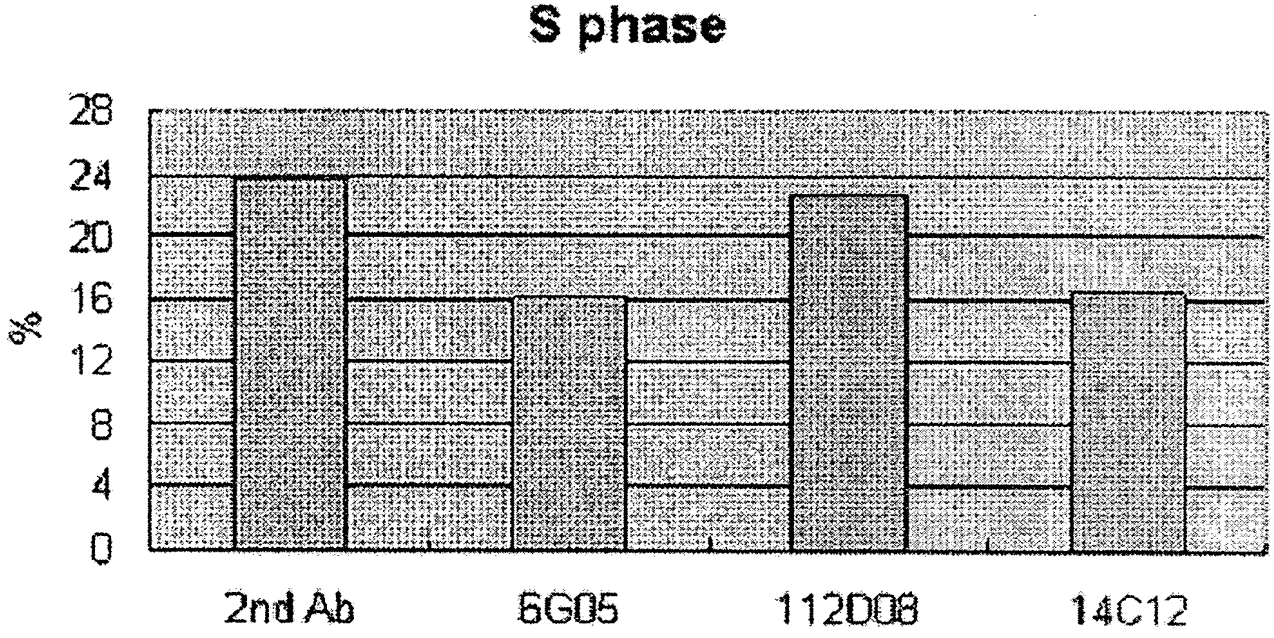


FIG. 35C